

LIBRARY  
BUREAU OF THE CENSUS

e  
oom







Census  
HD  
9715  
.U52  
U52x  
1984  
[v.2]  
no.9  
c.3

# 1982

# Census of Construction Industries

---

CC82-I-9

INDUSTRY SERIES

## Heavy Construction Contractors, N.E.C.

Industry 1629



---

U.S. Department of Commerce  
BUREAU OF THE CENSUS

BUREAU OF THE CENSUS  
LIBRARY

---

The publications  
from the 1982 Economic and  
Agriculture Censuses are dedicated  
to the memory of Shirley Kallek,  
Associate Director for Economic Fields.  
During her career at the Bureau of the  
Census (1955 to 1983), she continually  
directed efforts to improve  
the timeliness and accuracy of  
economic statistics.

---

# **1982**

## **Census of**

# **Construction Industries**

---

CC82-I-9

INDUSTRY SERIES

## **Heavy Construction Contractors, N.E.C.**

Industry 1629

---

Issued December 1984



**U.S. Department of Commerce**

Malcolm Baldrige, Secretary  
Clarence J. Brown, Deputy Secretary  
Sidney Jones, Under Secretary for  
Economic Affairs

**BUREAU OF THE CENSUS**  
John G. Keane,  
Director

---



## BUREAU OF THE CENSUS

John G. Keane, Director

C. L. Kincannon, Deputy Director

Charles A. Waite, Associate Director for  
Economic Fields

John H. Berry, Assistant Director for  
Economic and Agriculture Censuses

## CONSTRUCTION DIVISION

Leonora M. Gross, Chief

**ACKNOWLEDGMENTS**—Many persons participated in the various activities of the 1982 Census of Construction Industries. Primary direction of the program was performed by Shirley Kallek, Associate Director for Economic Fields (until May 1983), Charles A. Waite, her successor, and Michael G. Farrell, Assistant Director for Economic and Agriculture Censuses (until August 1984), and John H. Berry, his successor.

This report was prepared in the Construction Statistics Division under the general direction of Leonora M. Gross, Chief. Alan I. Blum, Assistant Division Chief for Industry Surveys, was responsible for the overall management of the census of construction industries. He guided the planning and implementation of the project and coordinated activities with other divisions.

A. William Visnansky supervised the preparation of this report. Barbara J. Hadden, Edward R. Glover, Otto G. Ricci, Marie Rustin-Sanhueza, and Shirley M. Baker made important contributions in such areas as developing specifications, procedures, and resolving problems.

The computer processing system was developed and coordinated under the direction of Barbara M. Walter. Richard W. Swartz made significant contributions to the planning and development of the computer programs, and Herbert S. Isham was responsible for the implementation of those programs. The computer programs were also developed and written by John Sibley, Clifford Jordan, Linda M. Mersch, Adele Cerrelli, and Dan G. Sansbury. Mary D. Brady was responsible for most of the data preparation specifications and procedures. Matthew R. Golas was responsible for the coordination with the Computer Services Division. Johnnye Pringle was responsible for production control of the computer processing. Under the direction of Jesse Pollock, Edward K. Ricketts and Dennis K. Duke developed the sampling plans, some computer processing specifications, and quality control procedures.

Systems and procedures for mailout, receipt, correspondence, data input, industry classification, other clerical processing, administrative record processing, and quality control, along with the associated electronic computer programs, were developed in the Economic Surveys Division, W. Joel Richardson, Chief.

Planning, design, review, and composition of report forms were performed in the Administrative Services Division, Robert L. Kirkland, Chief.

Publication planning, design, editorial review, composition, and printing procurement were performed in the Publications Services Division, Raymond J. Koski, Chief.

Geographic coding procedures and associated computer programs were developed in the Geography Division, Robert W. Marx, Chief.

Mailout preparation and receipt operations, clerical and analytical review activities, data keying, and geocoding review were performed in the Data Preparation Division, Don L. Adams, Chief.

Computer processing was performed in the Computer Services Division, C. Thomas DiNenna, Chief (until February 1984), and John E. Halterman, his successor.

Photocomposition programs for the statistical tables were developed in the Systems Support Division, Larry J. Patin, Chief (until October 1983), and Arnold E. Levin, his successor.

Special-purpose computer programs for disclosure analysis were developed in the Business Division, Gerald F. Crawford, Chief (until December 1983), and Howard N. Hamilton, his successor.

The overall planning and review of the census operations were performed by the staff of the office of the Assistant Director for Economic and Agriculture Censuses.

Special acknowledgment is also due to the many businesses whose cooperation has contributed to the publication of these data.

### Library of Congress Cataloging in Publication Data

Census of construction industries (1982)  
1982 census of construction industries.

Contents: [1] Geographic area series — [2] Industry series.

Supt. of Docs. no.: C 3.245/7: CC82-I-

1. Construction industry--United States--Statistics.

I. United States. Bureau of the Census. II. Title.

HD9715.U52C466 1984 338.4'7624'0973 83-600141

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

# INTRODUCTION

	Page
ECONOMIC CENSUSES OVER TIME .....	III
USES OF THE ECONOMIC CENSUSES .....	III
AUTHORITY AND SCOPE OF THE ECONOMIC CENSUSES .....	IV
METHOD OF ACCOUNTING AND TIME COVERED .....	IV
CENSUS OF CONSTRUCTION INDUSTRIES—SCOPE AND CLASSIFICATION .....	IV
ESTABLISHMENT BASIS OF REPORTING .....	V
SAMPLE DESIGN, ESTIMATION PROCEDURES, AND RELIABILITY OF ESTIMATES .....	V
CENSUS REPORT FORMS .....	VII
DATA PROCESSING .....	VII
GEOGRAPHIC CLASSIFICATION .....	VII
DUPLICATION IN RECEIPTS .....	VII
SPECIAL TABULATIONS .....	VIII
RELATIONSHIPS OF THE ECONOMIC CENSUSES TO CURRENT SURVEYS .....	VIII
COMPARABILITY OF CENSUS OF CONSTRUCTION INDUSTRIES DATA WITH OTHER DATA .....	VIII
ABBREVIATIONS AND SYMBOLS .....	VIII

## ECONOMIC CENSUSES OVER TIME

The early beginnings of America's industrial output were first measured in the United States in the 1810 Decennial Census and again in 1820, when questions on manufacturing were included with those for population. Beginning with the 1840 Decennial Census, there were enumerations of manufactures and mineral industries at 10-year intervals up to and including the year 1900 for manufactures and 1940 for mineral industries. The latter census was taken again for 1954, 1958, 1963, and 1967.

Because of the increasing dominance of manufacturing in the early 20th century, Congress directed that quinquennial censuses of manufactures be taken beginning in 1905. However, from 1919 through 1939, these censuses were conducted every 2 years. The need for war-related current surveys in the early 1940's postponed the next census of manufactures until 1948 (for 1947). That census was again taken for 1954, 1958, 1963, and 1967.

Retail and wholesale trade data were first collected in 1930, and in 1933 information on selected service industries was added to the data-collection operation. These business censuses, as they were called, were again taken for 1935, 1939 (as part of the 1940 decennial program), 1948, 1954, 1958, 1963, and 1967.

Information on construction industries was first obtained in 1930 and again for 1935 and 1939. Data for the full spectrum of construction industries were not gathered again until 1968 (for 1967).

The need for transportation data to supplement information available from existing governmental or private sources was recognized by Congress in the late 1950's and early 1960's. The census of transportation (consisting of several surveys) was first taken for 1963 and again for 1967.

Since 1967, all of the above censuses have been taken quintennially as part of the Census Bureau's economic census program. (For the 1977 censuses, the coverage of the service

industries was broadened from "selected services" to all services, except religious organizations and private households. A total of 41 additional four-digit standard industrial classifications' (SIC's) in 7 SIC major groups was added to the scope of the census. While most of the industries included for the first time for 1977 were covered again for 1982, some were not, i.e., hospitals; elementary and secondary schools; colleges, universities, and professional schools; junior colleges and technical institutes; labor unions and similar labor organizations; and political organizations.)

The first manufacturing census for an outlying area was conducted in Puerto Rico for the year 1909. Thereafter, with the exception of 1929, a census was taken at 10-year intervals through 1949. The first censuses of retail trade, wholesale trade, and selected service industries in Puerto Rico were conducted for 1939. These censuses also were taken for the years 1949, 1954, 1958, 1963, and 1967. A census of construction industries was first introduced in Puerto Rico for 1967. These censuses of Puerto Rico have been taken since then for the years 1972, 1977, and 1982.

Censuses of manufactures, retail trade, wholesale trade, and selected service industries were conducted in Guam and the Virgin Islands of the United States for 1958, 1963, 1967, 1972, 1977, and 1982. Censuses of mineral industries were taken in the Virgin Islands of the United States for the years 1958, 1963, and 1967 but not since that time. A census of construction industries was also undertaken in these areas for 1972, 1977, and 1982.

Retail trade, wholesale trade, selected service industries, manufacturing, and construction industries were canvassed for the first time in the Northern Mariana Islands in 1983 (for 1982).

For 1982, the economic censuses and agriculture censuses were conducted concurrently.

## USES OF THE ECONOMIC CENSUSES

The economic censuses are the major source for facts about the structure and functioning of the Nation's economy and provide essential information for government, business, industry, and the general public. They provide an important part of the framework for such composite measures as the gross national product, input-output measures, indexes of industrial production, and indexes measuring productivity and price levels. Information from the censuses is used to establish sampling frames and as benchmarks for current surveys of business activity, which are essential for measuring short-term economic conditions.

<sup>1</sup>Standard Industrial Classification Manual: 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Stock No.041-001-00066-6. 1977 Supplement. Stock No. 003-005-00176-0.

State and local governments use census data to assess business activities within their jurisdictions. The private sector uses the data to forecast general economic conditions; analyze sales performance; lay out sales territories; allocate funds for advertising; decide on locations for new plants, warehouses, or stores; and measure potential markets in terms of size, geographic areas, kinds of business, and kinds of products made or sold.

Following every census, thousands of businesses and other users purchase reports. Likewise, census facts are widely disseminated by trade associations, business journals, and newspapers. Volumes containing census statistics are available in most major public and college libraries. All 1982 data are available on microfiche from the U.S. Government Printing Office and most data on computer tape from the Census Bureau. Finally, the more than 50 State Data Centers also are suppliers of economic census statistics.

## AUTHORITY AND SCOPE OF THE ECONOMIC CENSUSES

The economic censuses are required by law under title 13 of the United States Code, sections 131, 191, and 224, which directs that they be taken at 5-year intervals for the years ending in 2 and 7. The 1982 Economic Censuses covered manufacturing, mining, construction industries, retail trade, wholesale trade, service industries, and selected transportation activities. Special programs also cover minority-owned and women-owned businesses. The next economic censuses are scheduled to be taken in 1988 for the year 1987.

## METHOD OF ACCOUNTING AND TIME COVERED

For the census report, respondents could use any system of accounting by which they maintained their books. Therefore, reports could be based on cash, accrual, or completion of contract methods of accounting.

A report was supposed to cover the calendar year 1982. If that involved considerable costs, fiscal year reporting was permitted if it did not produce great differences. However, all payroll and employment figures had to be reported for the calendar year.

## CENSUS OF CONSTRUCTION INDUSTRIES—SCOPE AND CLASSIFICATION

The 1982 Census of Construction Industries covers all employer establishments (establishments with payroll) primarily engaged in contract construction, construction on their own account for sale, or in subdividing real property into lots as defined in the 1972 Standard Industrial Classification (SIC) Manual.<sup>1</sup> This industrial classification system has been developed by experts on classification in government and private industry under the guidance of the Office of Management and Budget and is in general use among government agencies and among organizations outside the government.

<sup>1</sup>Standard Industrial Classification Manual: 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 041-001-00066-6. 1977 Supplement. Stock No. 003-005-00176-0.

**Contract construction**—The SIC manual defines construction in three broad types of activity: (1) building construction by general contractors, (2) other construction by general contractors, and (3) construction by special trade contractors.

1. **Building construction by general contractors**—General building contractors are primarily engaged in the construction of dwellings, office buildings, stores, farm buildings, and other projects of a similar character.
2. **Other construction by general contractors**—Often referred to as heavy construction contractors, these contractors are primarily engaged in the construction of highways, streets, bridges, and tunnels; docks and piers; dams and water projects; sewage collection, treatment, and disposal facilities; storm sewer systems; air fields; and other heavy construction which involves either earth moving or the erection of structures and appurtenances, other than buildings.
3. **Construction by special trade contractors**—Special trade contractors are primarily engaged in specialized construction activities such as plumbing, painting, electrical work, carpentry, etc.

General contractors in both the building and the heavy construction field usually assume responsibility for an entire construction project, but may subcontract to others those portions of the project requiring special skills or equipment. Special trade contractors may work for general contractors, for other subcontractors, or may work directly for the owner of the property.

**Construction on their own account, for sale**—Operative builders are primarily engaged in constructing buildings or other structures on their own account, acting as their own general contractor. These structures are generally sold when completed. Investment builders, primarily engaged in construction on their own account for rent or lease, were not included within the scope of the construction census.

**Subdividers and developers, except cemeteries**—The SIC manual defines subdividers and developers, except cemeteries, as establishments engaged in subdividing real property into lots, except cemetery lots, and in developing it for resale on their own account or for others.

In this system, each establishment is assigned an industry code on the basis of its major activity.

Each establishment receiving a questionnaire was requested to report the percent of total business receipts for each kind-of-business activity engaged in during 1982. This information was used for the computer assignment of appropriate industry classifications. During this work, various tests were also made using other data reported on the questionnaire. The proportion of construction receipts to total business receipts was checked to verify that the establishment was primarily in construction. Also taken into consideration were the types of structures worked on during the year and the extent of work undertaken for other contractors.

Construction establishments often engage in various construction activities, but in only a few instances do the SIC industry categories take into consideration combinations of activities. An example is SIC 1711, which includes establishments primarily engaged in plumbing, heating, air conditioning, ventilation, and refrigeration work. It is necessary, however, to assign a single industry code to the establishment based on its major activity.

Therefore, the statistics shown for an industry reflect not only the primary activity of the establishments in the industry, but also their secondary activities.

The structure of the Standard Industrial Classification System makes it possible to classify or tabulate establishments by major group (two-digit), industry group (three-digit), or industry (four-digit) according to the degree of detail available and needed.

## ESTABLISHMENT BASIS OF REPORTING

The census of construction industries is conducted on an establishment basis. A "construction establishment" is defined as a relatively permanent office or other place of business which has been established for the management of more than a single project or job and is expected to be maintained on a continuing basis. Such "establishment" activities include, but are not limited to, estimating, bidding, scheduling, purchasing, supervising, and operating the actual construction work being conducted at one or more construction sites.

Exceptions to the "relatively permanent office" rule were that: (1) in case of joint ventures, a separate establishment report was required covering the joint venture entity even though established to undertake only a single project; and (2) to the extent that separate legal entities were set up to carry out only a given project or part of a project, then a separate establishment report was also required for each legal entity.

To the extent that several companies shared or operated out of a single office or place of business, each such legal entity engaged in construction was considered a separate establishment and each was requested to file the necessary "establishment" report covering the activities it conducted in or from that common office.

Companies with more than one construction establishment were required to submit a separate report for each such establishment operated during all or any part of 1982.

Separate construction reports were not required for each project or construction site. Aggregated information was included in the report of the construction establishment responsible for the work of the construction projects and sites.

If an establishment engaged in two or more distinctly different lines of economic activity (wholesale or retail trade, service, manufacturing, construction, mining, etc.) at the same place of business, it was requested to file a separate report appropriate to each activity, provided that the activity was of substantial size and separate records were maintained or substantially accurate estimates could be prepared.

If a separate establishment report could not be prepared for each activity, then a construction report was requested covering all activities of that establishment providing that the 1982 gross receipts from construction activities exceeded the gross receipts from each of its other activities.

An establishment is not necessarily identical with a "company" or "enterprise," which may consist of one or more establishments. The census of construction industries figures represent a summary of records for individual establishments rather than for companies. The census tabulations, therefore, differ from those prepared on a company basis.

Construction businesses with no payroll during 1982 (nonemployers) were not required to file census reports. Collection and tabulation of data for these businesses are described in the section on "Sample Design." Foreign construction activities were not included in this census.

## SAMPLE DESIGN, ESTIMATION PROCEDURES, AND RELIABILITY OF ESTIMATES

The firms included in the 1982 Census of Construction Industries were identified as part of an operation common to all 1982 Economic Censuses. Construction firms were divided into employers (firms with payroll) and nonemployers (firms without payroll). Statistical information for the employers was obtained in the census by a survey which included all medium size and large employers and a sample of the smaller ones. Census reports were not required from the nonemployers. Statistics on them were obtained from administrative records of other agencies of the Federal Government based on information supplied directly to the agencies.

### Employer Firms

**Developing the sampling frame for employer firms—**This operation started with obtaining a list of all construction firms in the active records of the Internal Revenue Service (IRS) which were subject to payment of Federal Insurance Contributions Act taxes. The basic source for this list has been the Internal Revenue Service Business Master File, a comprehensive list of firms engaged in business activities in the United States. The file contains the name, address, and form of ownership of each firm and also indicates whether or not the firm is subject to the Federal Insurance Contributions Act. Each firm in this file is assigned a unique employer identification (EI) number which it uses in filing its various reports with the IRS. The Social Security Administration (SSA) maintains a similar list using the same identification numbers, which also contains information on the industrial classification of each firm. The Bureau of the Census obtained both of these lists and combined them.

Under special arrangements which safeguarded the confidentiality of the information, the Bureau also obtained administrative-record data on payrolls and receipts and added these data to the combined list. The list, thus created from the IRS-SSA information, was a list of employer firms. However, for the 1982 Economic Censuses the basic reporting unit is the "establishment." Therefore, steps were taken to identify the individual establishments of those firms which operate more than one place of business. The information for making this determination was obtained by means of the Company Organization Survey (COS), an annual canvass of all known multiestablishment firms and large single-establishment firms. Thus, the 1982 Economic Census list for single-establishment employer firms was obtained from the IRS-SSA, but the list of establishments of multi-establishment employer companies was obtained directly from those companies in the COS.

In general, the IRS-SSA list provided sufficient industrial classification data to assign a firm to the proper economic census, but there were a number of firms for which this information was inadequate or unavailable. A special form, NC-9923, General Report, was mailed to all such firms, requesting information on the nature of the firm's activities. From the information reported, the firm was given an industrial classification code and assigned to the appropriate economic census. Since construction firms found in this way were identified as such, only after the regular census mailing had taken place, they were treated as a supplement to the basic list.

For 1982, some data will be published for Standard Consolidated Statistical Areas (SCSA's) and selected Standard Metropolitan Statistical Areas (SMSA's). Therefore, each establishment was assigned to an SMSA code or to the balance of a State. The balance of the State was considered to be a separate cell for the selection process. In States where none of the SMSA's had more than 500,000 inhabitants in the 1970 Decennial Census, all establishments were assigned to the balance of the State.

**Selecting the employer sample**—A construction universe of about 464,000 single establishment employer firms and 6,500 multiestablishment employers, accounting for another 13,000 construction establishments, was developed by the procedures described above. From this universe, a sample of 172,000 employer establishments was selected. This sample was generally organized by standard industrial classification (SIC) in State sequence. The sample was designed to provide publishable estimates for the most construction industries at the State and selected SMSA level. It consisted of all construction establishments in multiestablishment companies, all single-establishment companies with the payroll equivalent of 20 employees or more, and a sample of single-establishment companies with less than 20 employees. There were three SIC's for which this standard plan was not used: SIC 1622, Bridge, Tunnel, and Elevated Highway Construction Contractors; SIC 1795, Wrecking and Demolition Work Special Trade Contractors; and SIC 1796, Installation or Erection of Building Equipment Special Trade Contractors.

The number of establishments classified in each of these three industries is very small and consequently, all single-unit establishments in these three industries were included in the sample. For sampling purposes, the number of employees was estimated from the 1981 payroll data in the administrative records, using an industry average wage per employee. The sampling was accomplished using a systematic method within each four-digit SIC. If the SIC code for an establishment was not complete, it was sampled as part of a two-digit group (e.g., 1520 was sampled as 1500, 1620 as part of 1600) except for non-classifiable cases in two-digit group 17. These were sampled as part of 1799 which is Special Trade Contractors, Not Elsewhere Classified. For the establishments with less than 20 employees, the sample was selected by sorting the establishments into State by SMSA by SIC by payroll sequences, and drawing a systematic sample of at least two establishments within each cell, with the probability of selection being proportional to the 1981 payroll. If the State-SMSA-SIC cell had two or less establishments in the frame, all establishments were selected (a 100-percent sample). A 100-percent sample was taken of the construction firms identified from the NC-9923, General Report, and of the transfers from other census trade areas. These latter cases were identified during the processing stages. These were caused either by changes of activity in the firm since the last updating of the classification file, or errors in the mailout classification. These cases were all added to the construction census, with certainty.

**Estimation procedures for 1982 and 1977 data**—Since all larger employer firms and some smaller ones were included in the census, sample estimation was required only for the universe of firms not selected with certainty. The published statistics are the totals of the estimates for the sampled firms and the

aggregates for the certainty (larger) firms. All estimates for 1982 and 1977 published here are simple unbiased estimates of the form:

$$x'_c = \frac{\sum x_i / p_i}{n_c}$$

$$i = 1$$

where:  $x'_c$  is the simple unbiased estimate of a characteristic for a publication cell.  
 $x_i$  is the reported value of a characteristic for an individual establishment in the publication cell.  
 $p_i$  is the selection probability of that firm.  
 $n_c$  is the number of firms in the sample for the cell.

This method of estimation was used for all 1982 and 1977 characteristics. Before this formula was applied, it was necessary to convert into dollars those distributions of construction receipts which had been reported by the establishments as percentages—construction receipts by type of project, location of project, etc.

**Reliability of employer statistics**—Since the estimates for employer establishments in these reports are based on the samples, they are subject to sampling variability and may be expected to differ from results which would have been obtained if a complete census had been taken using the same forms and procedures. The sampling errors shown in the tables were estimates directly from the sample reports, using methods appropriate for the sample design and form of estimation used.

The relative standard error is a measure of sampling variability, i.e., the variation that might occur by chance because only a sample of the population is surveyed. As calculated for this report, the relative standard error also partially reflects the effect of random errors of response and processing, but it does not take into account the effect of any consistent biases due to those types of errors. The chances are about 68 out of 100 that an estimate from the sample would differ from a complete census by less than the relative standard error. The chances are about 95 out of 100 that the difference is less than twice the relative standard error and about 99 out of 100 that it is less than 2-1/2 times the relative standard error. Individual estimates with large relative standard errors have been shown in the published tables. Any such estimates should be used with caution. The very large relative standard errors generally occur for the smaller estimates.

Although relative standard errors have been calculated for all of the published statistics, they are shown for each statistic only in the tables presenting detailed statistics. The other tables show relative standard errors only for some characteristics because of lack of space.

Separate measures of reporting and processing errors are not available. However, estimates which were subject to large errors of these types are likely to have been detected and corrected, or withheld from publication in the process of the review of the data for reasonableness and consistency. Other specific qualifications of the published data are indicated in footnotes to the tables.

The statistics in this report were based on data received by the time of final publication. Data were imputed for

establishments that did not report by that date. Selected establishments were contacted again to obtain as much information on the telephone as possible. Late data received in early 1984 were substituted for imputed data when the difference between the two was significant. Some publication cells in which more than 50 percent of the data were imputed have been suppressed.

## Nonemployer Firms

**General**—As described earlier, the information derived from the business income tax returns of all firms was matched to the census employer file on the basis of common identification numbers. Those business income tax returns which could not be matched, were further classified on the basis of several characteristics. Returns with characteristics consistent with firms without payroll were treated as nonemployers. The nonemployer construction firms were not required to file census reports.

For "number of establishments," each separate income tax return was assumed to be an establishment. "All business receipts" was based on receipts information reported on the tax return. In 1982, this group accounted for 60 percent of the total number of construction establishments, but accounted for only 8 percent of all business receipts of all construction establishments.

**Qualifications to the nonemployer data**—Since no sampling was involved in the nonemployer establishments, the statistics for nonemployers are not subject to sampling variability. However, these data are subject to an unknown amount of reporting and processing errors which could not be detected by the Census Bureau.

## CENSUS REPORT FORMS

Information for the 1982 Census of Construction Industries was obtained from employer establishments primarily through the use of eight questionnaires, determined by industry classification and size. Standard forms and short forms were developed for each of the three two-digit SIC groups (15, 16, and 17), and for the establishments classified in SIC 6552. Establishments with 50 or more employees all received the standard form. A sub-sample of establishments with fewer than 50 employees received short forms instead of the standard forms. The short forms covered only major items and omitted most of the detail found in the longer forms.

In reviewing and developing the questionnaires, comments and recommendations were solicited from construction trade associations and appropriate advisory groups. The Census Bureau surveyed several thousand firms representing all economic activities to gain insight into the way companies maintain records and to see whether new information could be collected.

## DATA PROCESSING

The 1982 census report forms were mailed out in December 1982. Collection of these report forms, also by mail, was essentially completed in July 1983. They were mailed from and

returned to the Census Bureau's Data Preparation Division in Jeffersonville, Ind., where routine editing and coding of the report forms were also accomplished.

The returned reports underwent extensive processing. A preliminary edit done at the time of data entry identified obviously deficient reports and reports needing clarification. When necessary, these problems were resolved by further contact with the respondents. Next, the data were transmitted to Census Bureau headquarters in Washington, D.C.

Data records, then, underwent a detailed computer review and analysis. The records containing significant problems were referred for further analytical review and, if necessary, contacts were made with the respondents. The computer performed most classification coding (such as industry coding, geographic coding, and size coding) and imputation for missing items or for the small number of reports not received in time for tabulation. The imputation was performed on an industry (or industry group)-State (or geographic group) basis using all available response and administrative data.

The data records were then tabulated on an industry basis. Industry totals were subjected to analytical review, and selected statistics were prepared for the preliminary reports. Corrections resulting from this review were made to the computer records and final tabulations were produced.

The review of a preliminary report for an industry often uncovered the need for corrections or revisions to the data for another industry for which a preliminary report had already been published. The final reports incorporate all revisions and corrections made during the review of the preliminary reports and contain considerable more data than were published in those reports.

## GEOGRAPHIC CLASSIFICATION

Information for the 1982 Census of Construction Industries' final industry report series is classified on the basis of two types of geographic distributions: (1) physical location of the establishment, and (2) location of construction work. Separate State codes were assigned based on this information.

The geographic area reports series presents similar data by industry for each State (physical location of the establishment) and for selected SCSA's and SMSA's.

## DUPLICATION IN RECEIPTS

The aggregate of construction receipts reported by all construction establishments in each of the several industry, geographic area, or other groupings in this census, contains varying amounts of duplication, since the construction work (and the receipts) of one firm may be subcontracted to other construction firms and also be included in the subcontractors' receipts. To avoid this duplication, a "net construction receipts" figure has been derived for each establishment by subtracting the payments made for construction work subcontracted to others from the total construction receipts.

Duplication in receipts between other construction and non-construction industries results from the use of products of these other industries as input materials by construction establishments. "Value added," avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or areas. "Value added," is

defined in the 1982 Census of Construction Industries as equal to all business receipts less payments for construction work subcontracted to others and payments for materials, components, supplies, and fuels. However, for SIC 6552 and SIC 1531 where land receipts are significant, value added is defined as equal to all business receipts less land receipts, payments for construction work subcontracted to others, and payments for materials, components, supplies, and fuels.

## SPECIAL TABULATIONS

Special tabulations of data collected in the 1982 Census of Construction Industries may be obtained on computer tape or in tabular form. The data will be in summary form and subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies), as are the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact and detailed specifications of the type and format of the data to be provided, should be directed to the Chief, Construction Statistics Division, Bureau of the Census, Washington, D.C., 20233.

To discuss a special tabulation before submitting specifications, call 301-763-5435.

## RELATIONSHIPS OF THE ECONOMIC CENSUSES TO CURRENT SURVEYS

The Census Bureau also conducts current surveys (monthly, quarterly, and annually) to keep abreast of the rapid changes in business conditions, new processes, new materials, and shifting demands of goods and services. The census universe provides the sampling frame, weights, and benchmarks on which some of these current surveys are based. The accuracy of the measures derived from these current surveys is directly related to the completeness of information provided in the censuses.

## COMPARABILITY OF CENSUS OF CONSTRUCTION INDUSTRIES DATA WITH OTHER DATA

Data contained in the reports of the 1982 Census of Construction Industries are not the same as the data published in the Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity, whereas, the construction census figures cover both new construction and

maintenance and repair work, but only for establishments classified in the construction industry. Force account construction activity—construction work performed by the labor force of a nonconstruction company for itself, or by other entities (Federal, State, or local governments) for themselves, or by property owners for themselves—probably accounts for more than half of the difference in the data of the two series of reports. Other factors contributing to the difference are that the census data do not include: (1) the value of materials supplied by the owners of projects, (2) the value of separate architectural and engineering services and, to a lesser extent, (3) the value of construction work performed for others by firms outside the scope of construction (manufacturers who install, lumber yards and other businesses, etc.).

Data contained in the reports of the census of construction industries may also differ from industry data in "Employment and Earnings Statistics," published by the Bureau of Labor Statistics, and "Statistics of Income," published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology. Their effect is not fully known.

## ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in this publication:

- \* Sampling error exceeds 40 percent.
- \*\* All employees (average) is the sum of construction workers during pay period including 12th of March, May, August, and November divided by 4, added to all others, March 12th.
- Represents zero.
- † Represents total construction receipts less payments for construction work subcontracted to others. (See Duplication in Receipts.)
- †† Represents all business receipts less payments for construction work subcontracted to others, and payments for materials, components, supplies, and fuels. In SIC's 1531 and 6552, land receipts are also subtracted from "all business receipts." (See Duplication in Receipts.)
- + Possible duplication in data. (See Duplication in Receipts.)
- (D) Withheld to avoid disclosing data for individual companies; data are included in higher level totals.
- (NA) Not available.
- (S) Withheld because estimate did not meet publication standards on the basis of either the response rate, associated standard error, or a consistency review.
- (W) Greater than zero but less than 1 percent.
- n.s.k. Not specified by kind.

# Users' Guide for Locating Statistics in This Report by Table Number

Statistics	For U.S.	By State	By employment size	By receipts size	By type, class, ownership, kind of business, and location of construction <sup>1</sup>	By specialization in types of construction
Assets and depreciation (gross book value):						
Beginning of year—structures, machinery and equipment .....	3					
End of year—total .....	1, 3	1	5	6		
End of year—structures, machinery and equipment .....	3					
Depreciation charges during the year—structures, machinery and equipment .....	3					
Capital expenditures:						
Total capital expenditures .....	1, 3	1	5	6		
New structures—machinery and equipment .....	3					
Used structures—machinery and equipment .....	3					
Communication services, payments for .....	2					
Employees:						
All employees—average number .....	1, 2	1	5	6		
Construction workers—average number .....	1, 2, 9					8
Other employees—March .....	2					
Employer costs for fringe benefits—legally required and voluntary expenditures .....	2					
Establishments:						
Number in business at end of year .....	2					
Number in business during the year .....	1, 2, 4, 9	1, 9	5	6		8
Hours—construction workers:						
Total .....	1, 2, 9	1, 9	5	6		
Quarterly .....	2, 9	9				
Inventories .....	4					
Materials, components, supplies, and fuels—payments for .....	1, 2	1	5	6		
Payroll:						
First quarter, all employees .....	2					
Annual:						
All employees .....	1, 2	1	5	6		
Construction workers .....	1, 2	1				8
Other employees .....	2					
Power, fuels, and lubricants—payments for .....	2					
Profile of the industry—selected industry averages .....	12					
Proprietors and working partners .....	2					
Ratios, State .....	13	13				
Receipts:						
All business receipts .....	2					
Construction receipts, total .....	1, 2, 4	1	5	6	2, 7, 10	8
For work subcontracted in from others .....	2					
Other business receipts and land receipts <sup>2</sup> .....	2					
Net construction receipts .....	1, 2	1	5	6		
Value added .....	1, 2	1	5	6		8
Rental payments:						
Total .....	1, 2	1	5	6		
For machinery and equipment .....	2					
For structures .....	2					
Repairs to structures and related facilities .....	2					
Repairs to machinery and equipment .....	2					
Storage capacity for fuels <sup>3</sup> .....	2					
Subcontract work to others, payments for .....	1, 2	1	5	6		8

Note: Data for 1977 and earlier years are also available in some of these tables.

<sup>1</sup>Type—buildings, roads, etc. Class—new construction or maintenance and repair work. Ownership—private or government owned.

<sup>2</sup>Other business receipts and land receipts are shown separately for SIC's 1531 and 6552 only.

<sup>3</sup>Storage capacity for fuels shown only for SIC's 1611, 1622, 1623, and 1629.



# **Heavy Construction Contractors, N.E.C.**

## **CONTENTS**

[Page numbers listed here omit the prefix that appears as part of the number of each page]

---

	Page
Introduction . . . . .	III
Users' Guide for Locating Statistics in This Report by Table Number . . . . .	IX
Summary of Findings . . . . .	3

---

### **TABLES**

#### **Statistics for Establishments With Payroll**

1. General Statistics by State: 1982 and 1977 . . . . .	4
2. Detailed Statistics: 1982 and Earlier Census Years . . . . .	6
3. Assets, Capital Expenditures, and Depreciation: 1982 and Earlier Census Years . . . . .	7
4. Value of Inventories : 1982 and 1981 . . . . .	7
5. Selected Statistics by Employment Size Class: 1982 and 1977 . . . . .	8
6. Selected Statistics by Receipts Size Class: 1982 and 1977 . . . . .	8
7. Construction Receipts by Type of Construction: 1982 and 1977 . . . . .	9
8. Selected Statistics by Specialization in Types of Construction: 1982 . . . . .	10
9. Quarterly Construction Worker Hours and Employment by State: 1982 . . . . .	12
10. Construction Receipts by Location of Construction Work: 1982 and 1977 . . . . .	14
11. All Business Receipts by Kind of Business Activity: 1982 and 1977 . . . . .	15
12. Profile of Establishments in This Industry: 1982 and Earlier Census Years . . . . .	15
13. Selected Industry Ratios by State: 1982 . . . . .	16

Statistics for Establishments Without Payroll appear in the U.S. Industry Summary Report.

---

### **APPENDICES**

A. Explanation of Terms . . . . .	A-1
B. Standard Industrial Classification Titles for Industry Groups and Industries . . . . .	B-1
C. Geographic Divisions and States . . . . .	C-1

---

Publication Program . . . . .	Inside back cover
-------------------------------	-------------------



# SUMMARY OF FINDINGS

Establishments classified in this industry are primarily engaged in heavy construction projects not elsewhere classified, such as construction of chemical complexes, dams and reservoirs, harbor and port facilities, missile facilities, oil refineries, subways, water and sewage treatment plants, light and power plants, industrial ovens and incinerators, flood control projects, and dredging and demolition contractors. For specific examples, refer to the 1972 Standard Industrial Classification (SIC) Manual and its 1977 supplement.<sup>1</sup>

During 1982, there were 7,662 establishments with payroll classified in this industry.<sup>2</sup> All business receipts of these establishments amounted to \$36.3 billion, of which \$33.7 billion were receipts for construction work. Their payments for construction work subcontracted to others amounted to \$7.3 billion, leaving net construction receipts of about \$26.4 billion. Value added for 1982 was \$19.0 billion. (See Introduction and appendices for explanation of terms.)

The establishments in this industry made payments of \$9.5 billion for materials, components, and supplies purchased for use in construction work for others, purchased and subsequently provided to subcontractors for their use, purchased and then resold to others, and purchased and used in construction work for their own account. However, materials furnished to contractors by owners of projects are, of course, not included. Payments of \$639 million were also made for selected power, fuels, and

<sup>1</sup>Standard Industrial Classification Manual: 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 041-001-00066-6. 1977 Supplement. Stock No. 003-005-00176-0.

<sup>2</sup>Limited data for establishments in this industry without payroll (nonemployers) will be included in the U.S. industry summary report to be published after the individual industry reports have been issued.

lubricants purchased during the year from other companies or received from other establishments of the parent company.

Establishments with 10 employees or more, while representing only 30 percent of the total number of employer establishments in this industry, accounted for 97 percent of all business receipts.

Total average employment in the industry showed an increase of 1 percent from 1977 to a total of 415 thousand employees. Total payroll for 1982 amounted to \$11.1 billion. Hours worked by construction workers during the first quarter of 1982 were 148 million hours, while hours worked during the third quarter were 154 million hours.

Payments of \$1.9 billion for employer costs for fringe benefits (not included in payroll) represent expenditures during the year for legally required and voluntary fringe benefit programs for employees—such as employer's Social Security contributions, unemployment compensation, pension plans, and welfare plans.

The 1982 estimates for establishments with payroll in all of the construction industries are based on a probability sample consisting of about 172,000 construction establishments. The estimates for this particular industry are based on a sample of about 4,300 establishments.

The statistics reported by each establishment cover all of its activities, not just construction. Therefore, aggregates of such data for an industry reflect not only the primary construction activities of the establishments in the industry, but also their secondary construction activities and any nonconstruction activities.

All data shown are based on current dollars for the years specified and have not been adjusted for price changes or inflation between 1977 and 1982.

**Table 1. General Statistics for Establishments With Payroll by State: 1982 and 1977**

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Location of establishment	1982								
	Number of establish- ments	Employees**			Payroll		Construction worker hours (thousands)	Total construction receipts	Net construction receipts†
		All	Construction workers	All employees	Construction workers				
	A	B	C	D	E	F	G	H	
United States .....	7 662	415 199	329 475	11 062 660	8 649 399	603 963	33 657 455	26 391 852	
Alabama .....	144	5 815	4 551	143 738	101 510	8 167	499 235	340 764	
Alaska .....	40	2 030	1 609	47 343	37 394	2 354	172 292	154 131	
Arizona .....	59	2 151	1 908	47 196	41 743	3 446	224 162	201 115	
Arkansas .....	121	2 454	2 275	55 695	51 701	4 792	130 079	116 078	
California .....	707	60 637	40 465	2 180 808	1 478 193	74 914	6 847 226	5 077 621	
Colorado .....	128	5 762	4 722	170 620	143 442	8 380	857 485	734 156	
Connecticut .....	65	(D)	(D)	(D)	(D)	(D)	(D)	(D)	
Delaware .....	26	1 367	1 290	(D)	(D)	(D)	(D)	(D)	
District of Columbia .....	3	(D)	(D)	(D)	(D)	(D)	(D)	(D)	
Florida .....	463	8 549	6 505	170 737	116 132	11 573	652 163	553 456	
Georgia .....	212	4 420	3 785	82 092	66 245	7 150	290 185	228 849	
Hawaii .....	28	321	225	6 688	4 526	329	26 894	18 729	
Idaho .....	39	(D)	(D)	(D)	(D)	(D)	(D)	(D)	
Illinois .....	236	8 812	6 983	253 278	194 996	12 249	979 395	763 882	
Indiana .....	192	5 342	4 802	171 616	154 077	9 044	347 947	326 350	
Iowa .....	183	847	708	12 362	10 292	1 299	67 408	55 508	
Kansas .....	156	3 128	2 639	61 214	49 255	4 761	225 788	169 350	
Kentucky .....	101	1 646	1 363	35 970	29 370	2 207	110 847	97 824	
Louisiana .....	317	18 755	15 993	437 654	369 188	32 852	1 409 072	1 296 888	
Maine .....	23	1 218	1 027	25 515	20 744	2 644	85 462	73 266	
Maryland .....	105	9 165	5 748	272 621	172 437	11 669	684 393	482 435	
Massachusetts .....	141	13 963	12 092	240 007	160 232	20 891	612 474	508 874	
Michigan .....	202	13 773	11 084	431 849	335 508	22 130	1 233 754	890 812	
Minnesota .....	151	4 840	3 369	100 955	70 301	5 705	418 568	263 668	
Mississippi .....	124	8 360	8 051	209 895	202 000	16 988	695 478	611 548	
Missouri .....	148	2 918	2 477	57 556	43 413	3 450	316 569	232 995	
Montana .....	74	1 404	1 222	20 214	16 877	2 752	80 137	66 616	
Nebraska .....	68	340	284	6 372	5 157	546	29 404	23 295	
Nevada .....	25	(D)	(D)	(D)	(D)	(D)	(D)	(D)	
New Hampshire .....	59	5 974	5 191	(D)	(D)	(D)	240 536	224 671	
New Jersey .....	213	7 636	6 026	183 602	136 478	10 783	631 407	544 410	
New Mexico .....	39	1 186	1 044	25 018	22 005	1 765	60 908	55 467	
New York .....	347	7 158	5 695	179 181	137 306	10 001	706 181	547 158	
North Carolina .....	168	2 429	2 022	66 254	54 773	4 029	255 408	222 621	
North Dakota .....	22	178	150	2 920	2 388	284	16 471	11 655	
Ohio .....	249	17 346	14 392	348 674	267 958	18 713	876 804	706 062	
Oklahoma .....	211	4 841	4 018	112 538	92 567	8 396	297 028	264 208	
Oregon .....	103	1 064	802	27 840	22 646	1 247	83 950	72 298	
Pennsylvania .....	183	17 215	12 062	499 406	360 081	23 859	1 330 838	1 081 430	
Rhode Island .....	23	548	448	13 632	11 122	764	42 763	38 092	
South Carolina .....	115	(D)	(D)	(D)	(D)	(D)	(D)	(D)	
South Dakota .....	21	(S)	(S)	(D)	(S)	(S)	(S)	(S)	
Tennessee .....	134	2 579	2 234	46 258	36 831	3 958	213 106	166 368	
Texas .....	861	80 998	68 751	2 019 097	1 618 104	141 165	5 662 114	4 774 226	
Utah .....	48	1 991	1 730	58 074	52 301	3 166	130 877	108 064	
Vermont .....	22	(D)	(D)	(D)	(D)	(D)	(D)	(D)	
Virginia .....	141	3 964	3 361	86 793	68 490	6 682	334 734	231 269	
Washington .....	200	7 857	6 526	253 315	223 859	12 495	972 283	877 266	
West Virginia .....	81	3 141	2 796	88 860	78 500	5 386	182 720	161 345	
Wisconsin .....	61	1 219	1 060	29 357	25 492	1 846	116 325	97 093	
Wyoming .....	68	651	543	12 885	10 356	868	42 683	38 389	

## 1982-Con.

Value added††	Payments for materials, components, supplies, and fuels	Payments for construction work subcontracted to others	Rental payments for machinery, equipment, and structures	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	1977			Relative standard error of estimate (percent) for column—			Location of establishment
						All employees**	Total construction receipts	Value added††				
I	J	K	L	M	N	O	P	Q	B	H	M	
18 952 918	10 091 724	7 265 602	569 707	448 890	5 452 687	412 719	21 624 035	12 446 662	(W)	(W)	(W)	U.S.
218 764	144 664	158 471	4 960	6 591	74 908	5 196	222 767	135 789	2	1	12	Ala.
140 167	38 955	18 161	5 061	4 308	48 240	1 175	94 910	79 776	2	1	1	Alaska
230 991	(D)	23 046	1 119	2 216	30 185	746	40 413	26 089	2	1	2	Ariz.
91 828	32 634	14 001	1 524	2 351	36 223	1 530	49 224	24 740	4	4	23	Ark.
3 999 987	(D)	1 769 605	96 067	56 047	610 019	64 001	3 957 847	1 913 599	(W)	(W)	(W)	Calif.
392 561	359 760	123 329	14 376	5 470	50 794	7 832	403 461	267 123	2	(W)	1	Colo.
(D)	(D)	84 658	(D)	3 399	45 811	4 402	214 793	147 116	—	—	3	Conn.
(D)	(D)	(D)	(D)	1 119	13 147	(D)	(D)	1	—	(W)	—	Del.
(D)	(D)	(D)	(D)	(D)	(D)	1 022	72 512	38 899	—	—	—	D.C.
385 794	220 358	98 707	14 455	15 707	140 409	7 626	471 929	212 302	2	2	5	Fla.
150 808	92 173	61 336	3 569	6 473	56 065	5 339	287 223	121 697	4	3	8	Ga.
14 660	4 578	8 165	217	(D)	3 317	475	30 261	12 252	10	14	—	Hawaii
(D)	(D)	(D)	(D)	237	(D)	(D)	(D)	(D)	—	—	17	Idaho
506 554	273 435	215 512	15 442	32 121	206 468	16 063	831 002	485 163	1	1	(W)	Ill.
260 650	67 892	21 597	5 743	4 646	72 933	9 820	427 005	268 844	2	1	3	Ind.
32 301	24 492	11 900	1 167	3 021	29 206	1 548	64 216	39 322	8	8	16	Iowa
93 010	80 471	56 438	3 250	6 307	65 005	4 907	187 547	109 131	3	4	2	Kans.
63 163	39 147	13 022	3 358	2 958	35 797	2 733	127 085	76 199	4	4	3	Ky.
917 177	412 132	112 184	45 727	34 137	628 835	18 534	775 402	534 889	1	1	1	La.
42 132	31 276	12 196	(D)	(D)	(D)	879	24 229	14 124	2	2	—	Maine
499 566	(D)	201 957	14 179	10 812	312 280	8 568	522 518	261 348	1	1	2	Md.
338 142	204 646	103 600	15 403	5 192	93 335	(D)	598 226	356 096	1	1	3	Mass.
758 119	(D)	342 942	18 763	11 388	107 790	8 562	636 579	306 317	1	1	3	Mich.
307 878	173 796	154 900	5 332	9 136	224 488	6 724	420 493	223 838	2	1	1	Minn.
140 471	97 150	83 574	4 711	10 515	62 151	4 047	241 200	119 892	2	2	3	Mo.
52 958	17 142	13 521	1 618	1 035	18 557	263	12 223	6 535	3	5	4	Mont.
15 683	8 144	6 108	1 498	1 452	14 370	1 365	78 178	44 204	16	9	7	Nebr.
(D)	(D)	(D)	(D)	(D)	759	4 351	(D)	(D)	—	—	32	Nev.
184 349	43 881	15 865	1 279	668	22 053	967	38 624	19 335	1	1	3	N.H.
379 844	178 972	86 997	17 835	13 562	173 078	18 828	680 836	324 666	1	1	5	N.J.
40 549	15 497	5 441	2 100	4 093	22 386	2 007	57 696	32 647	2	2	2	N. Mex.
363 894	200 318	159 023	17 885	14 329	100 153	11 078	736 355	347 192	2	1	3	N.Y.
161 627	62 530	32 787	2 607	1 639	28 479	2 574	125 450	65 146	3	2	12	N.C.
6 937	(D)	4 815	486	269	6 931	447	25 929	13 186	4	5	13	N. Dak.
529 843	225 393	170 741	12 236	11 455	132 848	15 234	751 812	453 095	1	1	2	Ohio
180 692	88 742	32 820	6 401	8 663	65 937	2 412	143 689	76 316	2	2	2	Okla.
51 067	22 916	11 652	8 547	2 484	15 882	1 365	118 852	65 946	5	5	2	Oreg.
855 671	395 667	249 408	20 211	11 538	159 787	25 185	1 224 417	787 799	(W)	(W)	1	Pa.
27 297	(D)	4 671	(D)	444	3 144	164	13 208	4 862	5	(W)	(W)	R.I.
(D)	(D)	(D)	(S)	2 984	45 126	4 518	145 363	87 219	—	—	6	S.C.
(S)	(S)	(S)	(S)	(S)	(S)	228	10 590	5 920	—	—	—	S. Dak.
104 936	64 646	46 738	3 260	3 901	37 095	2 561	96 375	56 486	2	2	1	Tenn.
3 613 146	1 499 836	887 888	115 994	96 002	1 106 838	99 133	4 976 357	3 486 383	(W)	(W)	1	Tex.
90 692	18 080	22 813	1 256	2 308	29 379	1 032	50 709	32 440	2	2	(W)	Utah
(D)	(D)	(D)	(D)	(D)	(D)	486	35 353	12 100	—	—	—	Vt.
131 946	103 377	103 465	4 993	9 485	82 498	2 448	115 218	57 717	2	2	1	Va.
692 973	199 390	95 017	12 366	10 109	136 024	5 347	351 904	190 326	1	1	2	Wash.
137 591	28 679	21 375	3 246	2 626	38 511	4 425	160 682	115 174	2	3	1	W. Va.
77 793	25 107	19 232	1 193	3 537	37 176	1 261	93 815	41 635	4	2	3	Wis.
30 361	10 007	4 294	1 387	2 836	24 930	816	32 145	22 430	10	8	6	Wyo.

**Table 2. Detailed Statistics for Establishments With Payroll: 1982 and Earlier Census Years**

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes.]

Item	1982	1977	1972	1967	Relative standard error of estimate (percent)			
					1982	1977	1972	1967
Number of establishments in business during year .....	7 662	8 342	8 110	7 469	2	2	3	4
Number of establishments in business at end of year .....	7 426	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
Proprietors and working partners .....	1 914	4 451	4 775	5 207	5	5	5	5
All employees** .....	415 199	412 719	286 211	292 945	(W)	(W)	1	1
Construction workers:								
March .....	343 523	293 876	216 599	220 535	(W)	(W)	1	1
May .....	337 572	324 564	230 788	235 037	(W)	(W)	1	1
August .....	314 569	334 002	245 745	246 568	(W)	(W)	1	1
November .....	319 609	320 642	236 802	230 383	(W)	(W)	1	1
Average .....	329 475	318 375	233 449	233 264	(W)	(W)	1	1
Other employees:								
March .....	85 453	92 739	50 499	57 569	(W)	(W)	1	1
Construction worker hours (thousands):								
January to March .....	148 261	(NA)	(NA)	(NA)	(W)	(NA)	(NA)	(NA)
April to June .....	148 188	(NA)	(NA)	(NA)	(W)	(NA)	(NA)	(NA)
July to September .....	153 780	(NA)	(NA)	(NA)	(W)	(NA)	(NA)	(NA)
October to December .....	153 732	(NA)	(NA)	(NA)	(W)	(NA)	(NA)	(NA)
Total hours worked .....	603 963	(NA)	(NA)	(NA)	(W)	(NA)	(NA)	(NA)
Payroll, all employees .....	11 062 660	7 298 267	3 665 520	2 632 973	(W)	(W)	1	1
Payroll, construction workers .....	8 649 399	5 274 120	2 875 686	1 996 659	(W)	(W)	1	1
Payroll, other employees .....	2 413 261	2 024 147	789 834	636 796	(W)	(W)	1	1
First quarter payroll, all employees .....	2 423 588	1 596 110	(NA)	(NA)	(W)	(W)	(NA)	(NA)
Employer costs for fringe benefits .....	1 903 384	1 354 246	(NA)	(NA)	(W)	(W)	(NA)	(NA)
Legally required expenditures .....	1 352 977	702 449	(NA)	(NA)	(W)	(W)	(NA)	(NA)
Voluntary expenditures .....	550 406	651 797	(NA)	(NA)	(W)	(W)	(NA)	(NA)
All business receipts .....	36 310 245	23 282 543	11 483 106	8 488 373	(W)	(W)	1	1
Total construction receipts .....	33 657 455	21 624 035	11 047 756	8 015 015	(W)	(W)	1	1
Receipts for work subcontracted in from others .....	1 949 539	1 217 455	882 645	491 133	1	1	2	1
Land receipts <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other business receipts .....	2 652 790	1 658 508	435 350	473 267	(W)	(W)	1	1
Net construction receipts <sup>1</sup> .....	26 391 852	17 527 251	8 962 585	6 818 318	(W)	(W)	1	1
Value added <sup>††</sup> .....	18 952 918	12 446 662	5 522 251	4 158 771	(W)	(W)	1	1
Selected payments .....	17 357 327	10 835 881	5 960 855	4 330 203	(W)	(W)	1	1
Materials, components, and supplies <sup>2</sup> .....	9 452 406	6 353 738	3 875 684	3 132 549	(W)	(W)	1	1
Construction work subcontracted to others .....	7 265 602	4 096 784	2 085 171	1 196 627	(W)	(W)	1	1
Selected power, fuels, and lubricants .....	639 318	385 359	(NA)	(NA)	(W)	(W)	(NA)	(NA)
Electricity .....	105 820	42 650	(NA)	(NA)	(W)	(W)	(NA)	(NA)
Natural gas .....	16 962	16 202	(NA)	(NA)	(W)	(W)	(NA)	(NA)
Gasoline and diesel fuel (including gasohol) .....	465 276	276 596	(NA)	(NA)	(W)	(W)	(NA)	(NA)
Other, including lubricating oils and greases .....	51 259	49 958	(NA)	(NA)	1	1	(NA)	(NA)
Storage capacity for fuels <sup>3</sup> (thousand gallons) .....	23 207	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
Rental payments for machinery, equipment, and structures .....	569 707	498 877	(NA)	(NA)	(W)	(W)	(NA)	(NA)
For machinery and equipment .....	473 109	436 842	250 351	193 693	1	(W)	2	1
For structures .....	96 597	62 035	(NA)	(NA)	(W)	1	(NA)	(NA)
Selected purchased services .....	438 848	409 777	(NA)	(NA)	(W)	1	(NA)	(NA)
Communication services .....	115 854	78 865	(NA)	(NA)	(W)	1	(NA)	(NA)
Repairs to structures and related facilities .....	13 497	15 852	(NA)	(NA)	2	1	(NA)	(NA)
Repairs to machinery and equipment .....	309 496	315 061	(NA)	(NA)	1	1	(NA)	(NA)
Ownership of construction projects:								
Total construction receipts .....	33 657 455	21 624 035	11 047 756	8 015 015	(W)	(W)	1	1
Government owned .....	8 105 801	5 562 202	3 649 390	(NA)	(W)	(W)	1	(NA)
Privately owned .....	25 551 654	16 061 833	7 398 366	(NA)	(W)	(W)	1	(NA)

\*Data were collected separately for establishments classified in SIC 1531, Operative Builders and SIC 6552, Subdividers and Developers, Except Cemeteries. For all other industries, data are included in other business receipts.

<sup>†</sup>For 1967 and 1972, includes data for power, fuels, and lubricants.

<sup>‡</sup>Data were collected only for establishments classified as heavy construction contractors.

**Table 3. Assets, Capital Expenditures, and Depreciation for Establishments With Payroll: 1982 and Earlier Census Years**

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	1982	1977	1972	1967	Relative standard error of estimate (percent)			
					1982	1977	1972	1967
<b>STRUCTURES, MACHINERY, AND EQUIPMENT</b>								
Beginning-of-year gross book value of depreciable assets	5 282 509	(NA)	(NA)	(NA)	(W)	(NA)	(NA)	(NA)
Capital expenditures, other than land	448 890	652 676	309 273	272 633	1	1	2	1
New	354 051	524 481	255 554	212 121	(W)	1	2	1
Used	94 839	128 196	53 719	59 584	3	2	4	3
Retirements and disposition of depreciable assets	278 713	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
End-of-year gross book value of depreciable assets	5 452 687	4 296 820	2 153 166	(NA)	(W)	(W)	1	(NA)
Depreciation charges during year	549 801	397 474	212 320	(NA)	(W)	(W)	2	(NA)
<b>Structures, Additions, and Related Facilities</b>								
Beginning-of-year gross book value of depreciable assets	764 350	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
Capital expenditures, other than land	97 185	104 569	33 811	50 239	1	3	4	5
New structures and related facilities	87 030	99 864	21 496	35 668	1	(W)	2	2
Used structures and related facilities	10 154	4 705	12 315	14 571	3	7	9	7
Retirements and disposition of depreciable assets	32 092	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
End-of-year gross book value of depreciable assets	829 443	747 942	251 512	(NA)	1	(W)	1	(NA)
Depreciation charges during year	63 507	33 992	16 528	(NA)	1	(W)	2	(NA)
<b>Machinery and Equipment</b>								
Beginning-of-year gross book value of depreciable assets	4 518 159	(NA)	(NA)	(NA)	(W)	(NA)	(NA)	(NA)
Capital expenditures, other than land	351 705	548 108	275 462	221 466	1	1	3	2
New machinery and equipment, including automobiles and trucks	267 020	424 617	234 058	176 453	1	1	2	2
New automobiles and trucks, intended primarily for highway use	48 338	73 104	(NA)	(NA)	1	2	(NA)	(NA)
Used machinery and equipment, including automobiles and trucks	84 685	123 491	41 404	45 013	3	2	4	3
Retirements and disposition of depreciable assets	246 621	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
End-of-year gross book value of depreciable assets	4 623 243	3 548 878	1 901 654	(NA)	(W)	(W)	1	(NA)
Depreciation charges during year	486 293	363 482	195 792	(NA)	1	1	2	(NA)

**Table 4. Value of Inventories for Establishments With Payroll: 1982 and 1981**

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	Establishments with payroll	Relative standard error of estimate (percent)
All establishments:		
Number	7 662	2
Total construction receipts	33 657 455	(W)
Establishments with inventories:		
Number	1 419	10
Total construction receipts	15 184 064	(W)
Inventories: <sup>1</sup>		
End of 1982, total	412 357	(W)
Value for establishments with LIFO reserve	36 359	1
Amount of LIFO reserve	(D)	-
Value for establishments with no LIFO reserve	375 998	(W)
End of 1981, total	442 927	(W)
Value for establishments with LIFO reserve	79 671	(W)
Amount of LIFO reserve	(D)	-
Value for establishments with no LIFO reserve	363 256	(W)
Establishments with no inventories:		
Number	6 243	2
Total construction receipts	18 473 391	(W)

<sup>1</sup>Inventories at cost or market prior to any adjustment to correct to LIFO values.

**Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1982 and 1977**

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Selected statistics	Total	Establishments with an average of—								
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 employees or more
<b>1982</b>										
Number of establishments -----	7 662	(S)	1 059	852	703	319	224	96	53	54
All employees** -----	415 199	(S)	6 963	11 654	22 313	21 649	33 882	32 002	37 061	241 971
Payroll, all employees -----	11 062 660	(S)	115 416	211 840	472 264	495 644	860 576	788 096	961 211	7 053 072
Construction worker hours (thousands) -----	603 963	(S)	8 607	14 723	30 619	32 995	50 557	48 277	58 005	350 297
All business receipts -----	36 310 245	(S)	467 734	826 879	2 007 523	1 995 379	3 261 415	3 131 155	3 735 414	20 384 339
Total construction receipts -----	33 657 455	(S)	450 245	798 316	1 939 637	1 962 810	3 173 413	3 051 301	3 436 280	18 370 989
Net construction receipts† -----	26 391 852	(S)	379 452	666 574	1 563 306	1 518 679	2 341 499	2 485 275	2 812 748	14 218 124
Value added†† -----	18 952 918	(S)	247 271	439 167	1 042 876	937 539	1 478 493	1 812 024	1 814 467	10 910 769
Payments for materials, components, supplies, and fuels -----	10 091 724	(S)	149 670	255 970	588 315	613 709	951 008	753 105	1 297 415	5 320 705
Payments for construction work subcontracted to others -----	7 265 602	(S)	70 793	131 742	376 331	444 131	831 914	566 026	623 532	4 152 865
Rental payments for machinery, equipment, and structures -----	569 707	(S)	12 199	25 160	50 074	49 943	84 026	62 779	51 158	225 357
Capital expenditures, other than land -----	448 890	(S)	14 052	30 187	46 187	46 783	80 284	64 517	157 343	(D)
End-of-year gross book value of depreciable assets -----	5 452 687	(S)	142 207	262 791	527 968	432 540	800 346	842 495	322 981	1 927 628
<b>1977</b>										
All employees** -----	412 719	9 001	9 091	11 600	1 20 517	22 378	30 932	49 682	33 403	226 115
Total construction receipts -----	21 624 035	337 752	343 173	512 269	1 202 125	1 355 556	1 950 573	3 030 885	1 575 062	11 316 640
Value added†† -----	12 446 662	181 970	181 723	286 631	623 834	670 670	966 510	1 695 339	999 571	6 840 414
<b>1982 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)</b>										
All employees** -----	(W)	-	5	4	1	(W)	(W)	(W)	(W)	(W)
Net construction receipt† -----	(W)	-	5	3	1	(W)	(W)	(W)	(W)	(W)
Capital expenditures, other than land -----	1	-	12	7	1	(W)	(W)	(W)	(W)	-

Note: Underscored data fields include data from adjoining columns which have been withheld to avoid disclosing data for individual companies.

**Table 6. Selected Statistics for Establishments With Payroll by Receipts Size Class: 1982 and 1977**

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Selected statistics	Total	Establishments with all business receipts of—								
		Less than \$25,000	\$25,000 to \$49,999	\$50,000 to \$99,999	\$100,000 to \$249,999	\$250,000 to \$499,999	\$500,000 to \$999,999	\$1,000,000 to \$2,499,999	\$2,500,000 to \$4,999,999	\$5,000,000 to \$9,999,999
<b>1982</b>										
Number of establishments -----	7 662	(S)	592	1 121	1 675	894	712	693	400	272
All employees** -----	415 199	(S)	856	2 041	5 745	5 944	8 156	17 162	18 413	333 554
Payroll, all employees -----	11 062 660	(S)	5 903	21 268	70 075	92 052	151 369	325 190	410 388	527 243
Construction worker hours (thousands) -----	603 963	(S)	898	2 406	7 037	7 417	10 407	22 786	26 409	491 746
All business receipts -----	36 310 245	(S)	21 285	82 569	266 423	318 478	505 245	1 092 369	1 415 577	1 913 252
Total construction receipts -----	33 657 455	(S)	20 616	78 765	256 718	305 021	484 417	1 057 803	1 370 080	1 880 323
Net construction receipts† -----	26 391 852	(S)	18 173	69 288	230 865	268 743	424 648	897 672	1 125 464	1 506 320
Value added†† -----	18 952 918	(S)	12 027	46 735	153 556	179 364	290 645	594 824	751 153	947 853
Payments for materials, components, supplies, and fuels -----	10 091 724	(S)	6 814	26 357	87 014	102 836	154 830	337 414	419 807	591 395
Payments for construction work subcontracted to others -----	7 265 602	(S)	2 443	9 477	25 852	36 277	59 769	160 131	244 616	374 003
Rental payments for machinery, equipment, and structures -----	569 707	(S)	338	1 938	5 637	7 332	12 356	35 009	39 956	55 055
Capital expenditures, other than land -----	448 890	(S)	243	2 099	9 207	8 624	19 300	27 559	41 710	35 125
End-of-year gross book value of depreciable assets -----	5 452 687	(S)	9 914	39 289	114 671	107 631	185 382	313 151	403 022	420 650
<b>1977</b>										
All employees** -----	412 719	1 896	1 593	4 264	8 355	7 697	10 443	18 548	20 509	339 414
Total construction receipts -----	21 624 035	17 054	30 714	103 467	271 331	275 894	404 744	850 800	1 046 962	18 623 070
Value added†† -----	12 446 662	7 620	16 654	56 168	145 761	155 709	233 164	502 840	576 704	10 752 044
<b>1982 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)</b>										
All employees** -----	(W)	-	8	7	6	5	4	1	(W)	(W)
Net construction receipt† -----	(W)	-	8	5	4	5	4	2	(W)	(W)
Capital expenditures, other than land -----	1	-	29	15	11	16	12	3	1	(W)

Note: Underscored data fields include data from adjoining columns which have been withheld to avoid disclosing data for individual companies.

<sup>1</sup>Data for this size class include establishments with receipts of \$10,000,000 or more, which were not tabulated separately in 1977.

**Table 7. Construction Receipts for Establishments With Payroll by Type of Construction: 1982 and 1977**

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes.]

Type of construction	Construction receipts			Relative standard error of estimate (percent) for column—		
	Total	New construction <sup>1</sup>	Maintenance and repair			
	A	B	C	A	B	C
<b>1982</b>						
<b>Total construction receipts<sup>‡</sup></b>	<b>33 657 455</b>	<b>29 853 557</b>	<b>4 003 897</b>	(W)	(W)	(W)
<b>Building construction</b>						
Office and bank buildings	2 438 968	2 233 666	205 301	(W)	(W)	1
Industrial buildings and warehouses	167 195	161 071	6 124	(W)	(W)	3
Hospitals and institutional buildings	1 765 154	1 613 542	151 612	(W)	(W)	(W)
Other buildings	133 162	127 126	6 036	(W)	(W)	(W)
	373 457	331 927	41 529	1	1	1
<b>Nonbuilding construction</b>						
Highways, streets, and related facilities	29 922 433	26 252 823	3 689 810	(W)	(W)	(W)
Bridges, tunnels, and elevated highways	709 021	580 516	128 505	(W)	1	1
Dam and reservoir construction	414 175	319 433	94 742	(W)	(W)	(W)
Marine construction	535 143	490 761	44 382	1	1	4
Harbor and port facilities	1 331 466	945 033	386 432	1	1	1
	406 305	302 569	103 736	2	1	4
<b>Conservation and development construction</b>						
Power and communication transmission lines, towers, and related facilities	465 380	401 893	63 486	3	2	5
Sewers, water mains, and related facilities	159 663	145 307	14 355	1	1	2
Sewers, sewer lines, and related facilities	541 632	503 163	38 468	1	1	7
Water mains and related facilities	367 376	347 869	19 506	1	1	4
Pipeline, other than sewer or water lines	174 255	155 293	18 961	2	1	13
Sewage treatment and water treatment plants	337 907	310 055	27 851	(W)	(W)	2
Sewage treatment plants	2 142 784	2 019 267	123 516	1	1	2
Water treatment plants	1 501 290	1 428 649	72 641	1	1	3
Mass transit construction	641 493	590 618	50 875	1	1	3
Subways	1 642 480	1 333 113	309 366	(W)	(W)	1
Railroads	1 051 937	991 222	60 715	(W)	(W)	(W)
Blast furnaces, petroleum refineries, and chemical complexes	590 542	341 891	248 650	1	1	2
Power plants	8 619 377	7 365 680	1 253 696	(W)	(W)	(W)
Power plants, nuclear	10 851 818	10 121 334	730 484	(W)	(W)	(W)
Power plants, except nuclear	5 621 458	5 430 045	191 412	(W)	(W)	(W)
Oilfields	5 230 360	4 691 288	539 071	(W)	(W)	(W)
Other nonbuilding construction	839 291	674 838	164 452	1	1	3
	925 991	739 861	186 139	1	1	7
<b>Construction work, n.s.k.</b>	<b>1 296 053</b>	<b>1 167 067</b>	<b>128 986</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>1977</b>						
<b>Total construction receipts<sup>‡</sup></b>	<b>21 624 035</b>	<b>19 596 598</b>	<b>2 027 437</b>	(W)	(W)	(W)
<b>Building construction</b>						
Office and bank buildings	1 117 644	1 001 246	116 398	(W)	(W)	2
Industrial buildings and warehouses	89 919	70 507	19 412	(W)	(W)	(W)
Hospitals and institutional buildings	663 117	594 550	68 567	(W)	(W)	1
Other buildings	111 261	107 055	4 206	(W)	(W)	1
	253 347	229 134	24 213	3	3	4
<b>Nonbuilding construction</b>						
Highways, streets, and related facilities	19 913 845	18 039 202	1 874 843	(W)	(W)	(W)
Bridges, tunnels, and elevated highways	372 330	344 645	27 685	1	1	3
Dam and reservoir construction	266 289	244 606	21 683	(W)	(W)	3
Marine construction	644 470	577 180	67 290	(W)	(W)	3
Harbor and port facilities	908 289	720 329	187 960	1	1	1
	303 577	253 570	50 007	1	1	2
<b>Conservation and development construction</b>						
Power and communication transmission lines, towers, and related facilities	712 637	633 062	79 575	2	2	4
Sewers, water mains, and related facilities	29 600	26 451	3 149	1	1	5
Pipeline, other than sewer or water lines	231 345	217 232	14 113	1	1	6
Sewage treatment and water treatment plants	584 436	566 314	18 122	(W)	(W)	5
Mass transit construction	1 809 966	1 749 856	60 110	1	1	2
Subways	1 056 629	915 734	140 895	1	(W)	3
Railroads	725 308	701 860	23 448	(W)	(W)	1
Blast furnaces, petroleum refineries, and chemical complexes	331 321	213 873	117 448	2	2	4
Power plants	6 225 972	5 416 073	809 899	(W)	(W)	(W)
Power plants, nuclear	6 075 400	5 791 360	284 040	(W)	(W)	(W)
Power plants, except nuclear	2 716 593	2 673 233	43 360	(W)	(W)	(W)
Other nonbuilding construction	3 358 807	3 118 127	240 680	(W)	(W)	(W)
	692 905	582 790	110 115	4	4	13
<b>Construction work, n.s.k.</b>	<b>592 567</b>	<b>555 822</b>	<b>36 745</b>	<b>2</b>	<b>2</b>	<b>4</b>

<sup>1</sup>For this industry, data for additions and alterations were not collected separately. These data are included with "New Construction."

**Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1982**

[Thousand dollars. Detail may not add to total due to rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or total receipts for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of construction receipts by type of construction was not provided in table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes.]

Item	Number of establishments	All employees**	Payroll, all employees	Total construction receipts		Net construction receipts†	Value added††	Relative standard error of estimate (percent) for column—			
				For all types	For specialized type			B	D	H	
				A	C	E	F	G	H		
All establishments	7 662	415 199	11 062 660	33 657 455	21 663 490	26 391 852	18 952 918	7 265 602	(W)	(W)	(W)
Establishments not specializing by type	892	122 453	3 261 633	9 015 609	(NA)	6 716 531	4 720 207	2 299 078	(W)	(W)	(W)
Establishments specializing 51 percent or more	6 770	292 746	7 801 027	24 641 845	21 663 490	19 675 321	14 232 710	4 966 523	(W)	(W)	(W)
<b>DAM AND RESERVOIR CONSTRUCTION</b>											
All establishments specializing in type	77	2 064	43 781	176 221	167 814	137 924	65 215	38 297	3	3	2
Establishments with—											
100 percent specialization	56	1 741	37 103	146 778	146 778	111 262	49 224	35 516	2	2	2
90 to 99 percent specialization	*6	*45	*601	(S)	(S)	(S)	(S)	(S)	70	—	—
80 to 89 percent specialization	5	49	1 709	6 895	5 694	(D)	4 439	(D)	11	8	—
70 to 79 percent specialization	8	128	2 216	8 730	6 499	8 603	6 496	127	35	20	19
60 to 69 percent specialization	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	—	—	—
51 to 59 percent specialization	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	—	—	—
<b>MARINE CONSTRUCTION</b>											
All establishments specializing in type	459	10 758	255 328	966 098	881 146	859 177	585 194	106 921	2	1	3
Establishments with—											
100 percent specialization	400	7 589	174 985	686 090	686 090	605 015	415 845	81 075	2	1	4
90 to 99 percent specialization	14	360	6 850	21 049	19 960	18 038	12 511	3 011	5	3	(W)
80 to 89 percent specialization	11	303	9 104	26 477	21 980	(D)	20 470	(D)	—	—	—
70 to 79 percent specialization	17	941	23 538	84 381	62 791	79 240	47 464	5 141	5	2	11
60 to 69 percent specialization	11	1 004	28 005	108 310	67 086	99 222	72 668	9 088	(W)	(W)	(W)
51 to 59 percent specialization	5	561	12 846	39 791	23 237	(D)	16 235	(D)	(W)	(W)	—
<b>HARBOR AND PORT FACILITIES</b>											
All establishments specializing in type	231	3 746	86 791	362 386	303 488	307 612	205 124	54 774	3	2	2
Establishments with—											
100 percent specialization	141	1 971	39 388	158 240	158 240	140 354	96 575	17 886	5	3	5
90 to 99 percent specialization	8	175	6 760	38 079	35 507	26 262	18 027	11 817	6	2	(W)
80 to 89 percent specialization	21	276	6 314	21 690	18 297	20 955	13 609	735	10	10	13
70 to 79 percent specialization	36	490	12 103	40 382	29 206	(D)	27 266	(D)	9	7	—
60 to 69 percent specialization	21	735	18 847	86 549	52 990	68 155	37 427	18 394	3	1	1
51 to 59 percent specialization	3	99	3 379	17 445	9 245	(D)	12 219	(D)	(W)	(W)	—
<b>CONSERVATION AND DEVELOPMENT CONSTRUCTION</b>											
All establishments specializing in type	816	5 374	82 327	355 010	333 218	311 990	176 008	43 019	4	4	5
Establishments with—											
100 percent specialization	734	4 294	61 998	266 421	266 421	236 530	129 633	29 890	5	4	6
90 to 99 percent specialization	30	173	3 995	13 889	12 902	11 273	8 499	2 616	15	10	7
80 to 89 percent specialization	27	265	5 575	23 638	19 439	20 685	14 121	2 953	11	13	34
70 to 79 percent specialization	3	215	3 925	(D)	(D)	(D)	(D)	(D)	—	—	—
60 to 69 percent specialization	18	320	4 438	21 988	14 161	17 626	13 338	4 361	14	9	5
51 to 59 percent specialization	4	106	2 396	(D)	(D)	(D)	(D)	(D)	(W)	—	—
<b>SUBWAYS</b>											
All establishments specializing in type	51	9 983	337 642	1 292 753	908 140	683 861	677 110	608 892	(W)	(W)	(W)
Establishments with—											
100 percent specialization	25	1 496	40 251	145 733	145 733	113 850	71 733	31 883	1	1	(W)
90 to 99 percent specialization	7	557	15 395	81 233	78 751	54 740	37 095	26 493	(W)	(W)	(W)
80 to 89 percent specialization	—	—	—	—	—	—	—	—	—	—	—
70 to 79 percent specialization	5	561	15 382	64 908	46 872	40 349	21 331	24 559	(W)	(W)	(W)
60 to 69 percent specialization	5	(D)	(D)	890 667	577 270	(D)	486 106	(D)	—	(W)	—
51 to 59 percent specialization	9	(D)	(D)	110 212	59 511	(D)	60 844	(D)	—	(W)	—
<b>RAILROADS</b>											
All establishments specializing in type	386	8 446	149 656	540 163	499 051	462 043	283 233	78 120	2	1	1
Establishments with—											
100 percent specialization	345	6 716	112 540	400 594	400 594	357 019	219 816	43 575	3	2	1
90 to 99 percent specialization	21	394	6 535	22 546	20 932	21 302	13 791	1 244	8	4	24
80 to 89 percent specialization	3	50	1 441	(D)	(D)	(D)	(D)	3 213	(D)	—	—
70 to 79 percent specialization	*6	(D)	(D)	(D)	(D)	(D)	(D)	(D)	—	—	—
60 to 69 percent specialization	5	552	14 779	48 901	30 954	43 074	28 312	5 827	(W)	(W)	(W)
51 to 59 percent specialization	*6	(D)	(D)	(D)	(D)	(D)	(D)	(D)	—	—	—
<b>BLAST FURNACES, PETROLEUM REFINERIES, AND CHEMICAL COMPLEXES</b>											
All establishments specializing in type	397	71 601	1 952 957	7 412 293	6 914 724	5 641 647	3 698 555	1 770 646	(W)	(W)	(W)
Establishments with—											
100 percent specialization	304	54 458	1 457 479	5 253 218	5 253 218	3 926 724	2 797 607	1 326 494	(W)	(W)	(W)
90 to 99 percent specialization	39	1 968	52 235	121 898	113 864	96 151	71 929	25 747	3	3	(W)
80 to 89 percent specialization	16	9 041	248 029	771 595	667 078	658 533	370 019	113 062	(W)	(W)	(W)
70 to 79 percent specialization	17	3 976	130 410	(D)	(D)	(D)	(D)	(D)	—	—	—
60 to 69 percent specialization	17	1 431	45 587	(D)	(D)	(D)	(D)	(D)	2	—	—
51 to 59 percent specialization	4	727	19 217	47 881	25 198	40 287	30 823	7 594	(W)	(W)	(W)
<b>POWER PLANTS, NUCLEAR</b>											
All establishments specializing in type	50	78 057	2 507 708	6 124 925	5 031 965	5 337 842	4 375 184	787 083	(W)	(W)	(W)
Establishments with—											
100 percent specialization	24	21 903	758 759	1 347 775	1 347 775	1 294 002	1 267 728	53 773	(W)	(W)	(W)
90 to 99 percent specialization	5	(D)	(D)	(D)	(D)	(D)	(D)	(D)	—	—	—
80 to 89 percent specialization	7	(D)	(D)	(D)	(D)	(D)	(D)	(D)	—	—	—
70 to 79 percent specialization	4	(D)	(D)	(D)	(D)	(D)	(D)	(D)	—	—	—
60 to 69 percent specialization	7	5 006	142 796	585 173	380 641	(D)	435 784	(C)	(W)	(W)	—
51 to 59 percent specialization	3	(D)	(D)	(D)	(D)	(D)	(D)	(D)	—	—	—

**Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1982—Con.**

[Thousand dollars. Detail may not add to total due to rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or total receipts for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of construction receipts by type of construction was not provided in table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes.]

Item	Number of establishments	All employees**	Payroll, all employees	Total construction receipts		Net construction receipts†	Value added‡	Relative standard error of estimate (percent) for column—			
				For all types	For specialized type			B	D	H	
	A	B	C	D	E	F	G	H	B	D	H
<b>POWER PLANTS, EXCEPT NUCLEAR</b>											
All establishments specializing in type	119	49 019	1 221 449	2 876 573	2 550 029	2 531 811	2 088 348	344 762	(W)	(W)	(W)
Establishments with—											
100 percent specialization	83	15 878	453 684	1 317 586	1 317 586	1 188 664	985 774	128 922	(W)	(W)	1
90 to 99 percent specialization	9	15 728	344 033	705 169	663 931	584 019	506 096	121 150	(W)	(W)	
80 to 89 percent specialization	7	1 479	40 807	96 537	78 506	72 910	59 236	23 627	1	1	(W)
70 to 79 percent specialization	9	4 025	114 283	192 173	138 954	174 202	156 427	17 971	(W)	(W)	
60 to 69 percent specialization	8	(D)	(D)	(D)	(D)	(D)	(D)	(D)	-	-	-
51 to 59 percent specialization	*2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	-	-	-
<b>SEWAGE TREATMENT PLANTS</b>											
All establishments specializing in type	335	11 320	230 196	1 277 504	1 015 091	753 474	302 940	524 030	1	1	(W)
Establishments with—											
100 percent specialization	208	4 628	79 101	437 865	437 865	227 374	71 032	210 491	2	2	1
90 to 99 percent specialization	24	897	19 184	91 755	85 798	59 048	25 291	32 707	(W)	(W)	
80 to 89 percent specialization	27	939	20 062	119 086	98 470	67 760	30 369	51 326	8	5	2
70 to 79 percent specialization	26	1 499	29 803	151 187	110 252	116 343	66 190	34 843	2	1	1
60 to 69 percent specialization	38	2 666	65 585	298 498	183 990	211 578	90 015	86 920	1	1	1
51 to 59 percent specialization	12	691	16 460	179 113	98 714	71 371	20 042	107 742	3	1	(W)
<b>WATER TREATMENT PLANTS</b>											
All establishments specializing in type	116	3 729	76 361	397 169	308 767	285 012	143 504	112 156	3	2	1
Establishments with—											
100 percent specialization	56	1 457	29 696	127 362	127 362	100 288	59 780	27 074	5	2	2
90 to 99 percent specialization	16	350	7 434	41 063	38 582	22 981	10 145	18 082	8	5	3
80 to 89 percent specialization	*5	188	3 797	29 070	25 058	(D)	*10 549	(D)	29	22	-
70 to 79 percent specialization	9	244	3 819	27 970	21 115	(D)	9 099	(D)	9	2	-
60 to 69 percent specialization	10	366	6 970	39 347	24 577	29 276	12 950	10 071	(W)	(W)	(W)
51 to 59 percent specialization	19	1 124	24 645	132 356	72 070	93 963	40 979	38 393	1	(W)	(W)
<b>OILFIELDS</b>											
All establishments specializing in type	247	9 991	226 403	832 741	803 624	728 418	481 888	104 323	1	1	2
Establishments with—											
100 percent specialization	210	8 694	200 122	730 780	730 780	637 106	406 485	93 674	2	1	2
90 to 99 percent specialization	5	223	4 389	13 659	13 195	11 580	9 105	2 079	(W)	(W)	
80 to 89 percent specialization	*10	560	11 291	25 605	20 832	22 640	17 604	2 965	3	1	(W)
70 to 79 percent specialization	*10	263	5 052	19 705	14 616	18 702	13 535	1 003	9	9	32
60 to 69 percent specialization	*11	(D)	(D)	(D)	(D)	(D)	(D)	(D)	-	-	-
51 to 59 percent specialization	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	-	-	-

**Table 9. Quarterly Construction Worker Hours and Employment for Establishments With**

[Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Location of establishment	Number of establishments	Average number of construction workers	Construction worker hours (thousands)	January to March		April to June	
				Construction workers <sup>1</sup>	Hours worked (thousands)	Construction workers <sup>1</sup>	Hours worked (thousands)
	A	B	C	D	E	F	G
United States -----	7 662	329 475	603 963	343 523	148 261	337 572	148 188
Alabama -----	144	4 551	8 167	4 037	1 810	4 112	1 940
Alaska -----	40	1 609	2 354	1 466	522	1 719	634
Arizona -----	59	1 908	3 446	1 715	747	1 877	870
Arkansas -----	121	2 275	4 792	2 510	1 373	2 266	1 198
California -----	707	40 465	74 914	46 437	22 230	38 610	18 044
Colorado -----	128	4 722	8 380	5 891	2 457	5 488	2 300
Connecticut -----	65	(D)	(D)	(D)	(D)	(D)	(D)
Delaware -----	26	1 290	(D)	1 414	(D)	1 542	(D)
District of Columbia -----	3	(D)	(D)	(D)	(S)	(D)	(S)
Florida -----	463	6 505	11 573	6 821	2 961	6 595	3 009
Georgia -----	212	3 785	7 150	3 702	1 691	3 884	1 831
Hawaii -----	28	225	329	279	100	253	95
Idaho -----	39	(D)	(D)	(D)	(D)	(D)	(D)
Illinois -----	236	6 983	12 249	7 354	3 321	6 853	3 023
Indiana -----	192	4 602	9 044	4 661	2 195	5 201	2 303
Iowa -----	183	708	1 299	495	217	763	354
Kansas -----	156	2 639	4 761	2 649	1 116	2 680	1 254
Kentucky -----	101	1 363	2 207	1 406	575	1 352	554
Louisiana -----	317	15 993	32 852	17 916	9 527	16 827	8 651
Maine -----	23	1 027	2 644	976	608	1 030	676
Maryland -----	105	5 748	11 669	6 050	3 067	5 488	2 806
Massachusetts -----	141	12 092	20 891	10 945	4 652	12 058	5 077
Michigan -----	202	11 084	22 130	10 734	5 376	11 188	5 603
Minnesota -----	151	3 369	5 705	3 099	1 318	3 216	1 337
Mississippi -----	124	8 051	16 988	7 877	(D)	7 899	4 197
Missouri -----	148	2 477	3 450	2 733	864	2 663	922
Montana -----	74	1 222	2 752	1 133	645	1 265	719
Nebraska -----	68	284	546	218	107	273	143
Nevada -----	25	(D)	(D)	(D)	(D)	(D)	(D)
New Hampshire -----	59	5 191	(D)	(D)	(D)	(D)	(D)
New Jersey -----	213	6 026	10 783	4 985	2 160	6 280	2 867
New Mexico -----	39	1 044	1 765	1 156	503	945	417
New York -----	347	5 695	10 001	5 418	2 363	5 788	2 547
North Carolina -----	168	2 022	4 029	1 779	832	1 872	1 036
North Dakota -----	22	150	284	69	43	234	95
Ohio -----	249	14 392	18 713	14 407	4 690	16 188	5 113
Oklahoma -----	211	4 018	8 396	4 022	1 984	4 591	2 497
Oregon -----	103	802	1 247	745	243	789	288
Pennsylvania -----	183	12 062	23 859	12 067	6 091	12 251	6 091
Rhode Island -----	23	448	764	458	189	486	205
South Carolina -----	115	(D)	(D)	(D)	2 275	(D)	3 602
South Dakota -----	21	(S)	(S)	(S)	(S)	(S)	(S)
Tennessee -----	134	2 234	3 955	2 055	934	2 228	1 005
Texas -----	861	68 751	141 165	75 496	37 465	69 427	36 349
Utah -----	48	1 730	3 166	1 533	708	1 969	846
Vermont -----	22	(D)	(D)	(D)	(D)	(D)	(D)
Virginia -----	141	3 361	6 682	3 568	1 713	3 415	1 709
Washington -----	200	6 526	12 495	7 141	3 516	7 007	3 297
West Virginia -----	81	2 796	5 386	3 270	1 501	2 698	1 374
Wisconsin -----	61	1 060	1 846	806	342	1 112	448
Wyoming -----	68	543	868	599	216	548	231

<sup>1</sup>Sum of construction workers during pay periods including 12th of March, May, August, and November.

# Payroll by State: 1982

July to September		October to December		Relative standard error of estimate (percent) for column—												Location of establishment
Construction workers <sup>1</sup>	Hours worked (thousands)	Construction workers <sup>1</sup>	Hours worked (thousands)	B	C	D	E	F	G	H	I	J	K			U.S.
H	I	J	K	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	
314 569	153 780	319 609	153 732	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	
5 133	2 136	4 869	2 280	2	2	2	2	2	2	2	2	2	2	2	2	2
1 680	606	1 553	591	2	2	2	3	2	3	2	2	2	2	2	2	Ala.
1 971	888	2 041	939	2	2	2	3	2	2	2	2	2	2	2	2	Alaska
2 259	1 182	1 996	1 038	3	3	3	3	3	3	3	4	3	4	3	4	Ariz.
30 963	13 737	45 623	20 902	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	Ark.
4 159	2 109	3 297	1 512	3	1	4	1	1	1	1	3	1	3	1	3	Colo.
(D)	(D)	(D)	(D)	—	—	—	—	—	—	—	—	—	—	—	—	Conn.
1 137	(D)	1 058	(D)	1	—	1	—	(W)	—	(W)	—	(W)	—	(W)	—	Del.
(D)	(D)	(D)	(S)	—	—	—	—	—	—	—	—	—	—	—	—	D.C.
6 445	3 055	6 037	2 546	2	2	2	2	2	2	2	2	3	2	3	2	Fla.
3 827	1 827	3 690	1 800	3	3	4	3	4	3	3	3	3	3	3	3	Ga.
160	58	200	74	11	11	10	11	16	17	10	15	12	16	12	16	Hawaii
(D)	(D)	(D)	(D)	—	—	—	—	—	—	—	—	—	—	—	—	Idaho
6 680	3 143	6 937	2 761	1	1	1	1	1	1	1	2	1	1	1	1	Ill.
4 673	2 358	4 583	2 188	1	1	1	1	2	2	1	1	1	1	1	1	Ind.
785	375	726	352	8	8	8	12	9	11	8	9	10	11	10	11	Iowa
2 859	1 311	2 285	1 079	3	3	3	3	3	3	3	4	3	4	3	4	Kans.
1 346	544	1 311	532	4	3	5	5	4	4	4	4	4	4	3	4	Ky.
14 829	7 971	14 300	6 702	1	1	1	1	1	1	1	1	1	1	1	1	La.
1 172	776	932	583	2	1	2	1	2	1	2	1	1	1	1	1	Maine
5 363	2 682	6 072	3 112	1	1	1	1	2	1	2	1	1	1	1	1	Md.
12 433	5 449	12 913	5 712	(W)	1	(W)	1	1	1	1	1	1	1	1	1	Mass.
11 506	5 719	10 785	5 431	1	1	(W)	1	1	1	1	1	1	1	1	1	Mich.
3 719	1 603	3 382	1 446	2	2	1	1	2	3	2	3	2	3	2	2	Minn.
7 917	(D)	8 455	4 683	1	(W)	1	—	1	1	1	1	1	1	1	1	Miss.
2 535	916	1 932	747	2	3	2	3	2	4	4	2	3	4	4	4	Mo.
1 396	761	1 033	625	3	3	2	3	3	4	4	3	3	4	4	4	Mont.
321	158	294	136	17	16	16	21	17	21	17	20	18	18	18	18	Nebr.
5 318	(D)	(D)	(D)	—	—	—	—	—	—	—	—	—	—	—	—	Nev.
5 318	4 916	(D)	(D)	1	—	—	—	—	—	—	—	—	—	—	—	N.H.
6 747	3 112	6 019	2 643	1	1	1	1	1	1	1	1	1	1	1	1	N.J.
1 053	445	1 006	400	2	1	1	1	2	2	2	2	2	2	2	2	N. Mex.
5 765	2 591	5 702	2 498	2	1	1	1	2	2	2	2	2	2	2	2	N.Y.
2 116	1 093	2 226	1 067	3	3	5	5	3	3	3	3	3	3	4	4	N.C.
131	77	138	68	4	7	5	11	3	9	5	11	5	11	5	12	N. Dak.
13 966	4 734	12 916	4 174	(W)	1	(W)	1	1	1	1	(W)	1	1	1	1	Ohio
4 094	2 149	3 324	1 765	2	1	2	2	2	6	7	2	2	3	3	3	Okla.
918	400	711	314	5	5	5	5	6	7	5	7	6	6	6	8	Oreg.
11 895	5 818	12 000	5 858	1	1	1	1	(W)	1	1	1	1	1	1	1	Pa.
387	173	455	196	2	2	3	3	3	3	3	2	2	1	1	1	R.I.
(D)	(D)	(D)	(D)	—	—	—	—	1	—	1	—	—	—	—	—	S.C.
(S)	(S)	(S)	(S)	—	—	—	—	—	—	—	—	—	—	—	—	S. Dak.
2 280	1 025	2 301	992	2	2	2	3	2	3	2	3	2	3	2	3	Tenn.
66 082	34 328	63 757	33 021	(W)	1	(W)	1	(W)	1	(W)	1	(W)	1	(W)	1	Tex.
1 765	847	1 633	763	1	1	1	1	1	1	1	1	1	1	1	1	Utah
(D)	373	(D)	407	—	—	—	—	—	—	—	—	4	—	5	5	Vt.
3 275	1 706	3 148	1 553	2	2	2	2	2	2	2	3	3	3	3	2	Va.
6 133	2 951	5 773	2 720	1	1	1	1	1	1	1	1	1	1	1	1	Wash.
2 530	1 268	2 675	1 242	2	2	2	2	2	2	2	2	2	2	2	2	W. Va.
1 141	541	1 160	513	3	3	2	2	2	4	4	4	5	5	3	4	Wis.
464	222	547	198	10	9	10	12	11	11	11	10	10	11	11	10	Wyo.

**Table 10. Construction Receipts for Establishments With Payroll by Location of Construction Work: 1982 and 1977**

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Location of construction work	1982					1977 construction receipts for work done in this State	Percent change 1982/ 1977 (col A-F)	Relative standard error of estimate (percent) for column—									
	Construction receipts for work done in this State	Construction work done by establishments located in this State		Construction work done by establishments not located in this State													
		Number	Construction receipts	Number	Construction receipts			A	B	C	D	E	F	G	A	C	E
United States -----	33 657 455	7 418	18 703 688	3 813	14 953 767	21 624 035	55.6	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	
Alabama -----	302 982	139	148 920	161	154 062	454 812	-33.4	1	2	(W)							
Alaska -----	680 530	40	172 292	22	508 238	572 074	19.0	(W)	1	(W)							
Arizona -----	856 164	55	73 327	80	782 836	597 873	43.2	(W)	3	(W)							
Arkansas -----	182 117	118	46 857	99	135 259	231 730	-21.4	3	12	(W)							
California -----	3 136 598	696	2 642 620	58	493 978	1 535 771	104.2	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)
Colorado -----	506 515	125	262 730	115	243 784	198 750	154.9	1	1	(W)							
Connecticut -----	91 531	60	37 627	37	53 904	105 459	-13.2	1	3	1							
Delaware -----	141 011	24	34 019	79	106 991	76 689	83.9	1	1	2							
District of Columbia -----	(D)	2	(D)	28	(D)	484 406	(D)										
Florida -----	978 279	460	535 155	129	443 124	526 958	85.6	1	2	1							
Georgia -----	610 341	209	239 282	98	371 058	370 826	64.6	1	3	(W)							
Hawaii -----	(D)	28	26 873	7	(D)	50 909	(D)										
Idaho -----	78 680	39	30 916	45	47 764	101 193	-22.2	3	7	2							
Illinois -----	999 112	225	654 696	101	344 415	867 448	15.2	(W)	1	(W)							
Indiana -----	527 492	189	147 117	111	380 375	475 384	11.0	1	2	(W)							
Iowa -----	118 217	183	61 904	62	56 312	225 892	-47.7	5	9	2							
Kansas -----	272 887	154	144 429	60	128 457	159 831	70.7	2	4	(W)							
Kentucky -----	266 619	99	78 985	106	187 633	368 572	-27.7	2	6	1							
Louisiana -----	1 734 813	317	1 005 174	192	729 639	1 363 484	27.2	(W)	1	(W)							
Maine -----	96 902	23	70 256	33	26 645	55 361	75.0	2	2	7							
Maryland -----	537 815	87	329 901	82	207 914	277 632	93.7	(W)	1	(W)							
Massachusetts -----	364 521	138	288 492	54	76 029	243 878	49.5	2	2	1							
Michigan -----	1 105 539	193	959 085	86	146 454	826 323	33.8	1	1	(W)							
Minnesota -----	163 698	145	134 226	20	29 471	229 978	-28.8	3	3	(W)							
Mississippi -----	1 042 637	118	259 316	88	783 321	435 223	139.6	(W)	1	(W)							
Missouri -----	290 511	144	111 110	86	179 401	198 762	46.2	2	5	(W)							
Montana -----	486 796	68	(D)	39	(D)	92 928	423.8	1									
Nebraska -----	50 945	61	22 569	40	28 376	138 108	-63.1	4	10	(W)							
Nevada -----	679 557	25	(D)	49	(D)	134 092	406.8	(W)	1	1	(W)						
New Hampshire -----	360 255	59	227 549	18	132 706	35 086	926.8	1	1	(W)							
New Jersey -----	942 221	198	300 453	87	641 767	560 714	68.0	(W)	1	(W)							
New Mexico -----	251 007	36	51 043	46	199 964	201 417	24.6	(W)	2	(W)							
New York -----	1 072 854	325	563 162	112	509 692	874 698	22.7	1	1	(W)							
North Carolina -----	266 638	166	94 724	86	171 914	227 713	17.1	1	3	1							
North Dakota -----	58 467	22	13 491	30	44 975	116 166	-49.7	1	5	(W)							
Ohio -----	647 243	235	338 151	91	309 092	554 620	16.7	1	2	(W)							
Oklahoma -----	265 129	201	187 517	92	77 612	255 826	3.6	3	4	2							
Oregon -----	81 505	91	51 831	34	29 674	151 621	-46.2	4	6	3							
Pennsylvania -----	1 224 769	175	472 571	126	752 198	880 758	39.1	(W)	1	(W)							
Rhode Island -----	(D)	22	24 439	9	(D)	15 431	(D)	-	3	-							
South Carolina -----	(D)	112	(D)	154	213 551	138 733	(D)	-									
South Dakota -----	24 786	21	1 694	16	23 092	32 723	-24.3	1	13	(W)							
Tennessee -----	713 976	126	144 883	64	569 093	185 180	285.6	(W)	2	(W)							
Texas -----	4 635 753	841	3 421 968	156	1 213 785	4 233 428	9.5	(W)	(W)	(W)							
Utah -----	246 010	44	105 265	53	140 744	107 338	129.2	1	2	(W)							
Vermont -----	73 116	22	(D)	12	(D)	16 050	355.6	1	-	-							
Virginia -----	459 688	141	223 711	165	235 976	301 304	52.6	1	2	1							
Washington -----	1 931 153	196	773 996	64	1 157 157	629 488	206.8	(W)	1	(W)							
West Virginia -----	178 133	79	47 809	62	130 324	383 774	-53.6	3	9	(W)							
Wisconsin -----	153 332	61	105 054	55	48 277	106 072	44.6	1	2	1							
Wyoming -----	477 224	67	40 247	103	436 976	215 653	121.3	1	8	(W)							

**Table 11. All Business Receipts for Establishments With Payroll by Kind of Business Activity: 1982 and 1977**

[Thousand dollars. Detail may not add to total due to rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Primary and other kinds of business activities	All business receipts		Relative standard error of estimate (percent)	
	1982	1977	1982	1977
All kinds of business.....	36 310 245	23 282 543	(W)	(W)
General building contractor.....	2 556 257	1 027 924	1	1
Highway and street contractor.....	552 723	428 226	1	1
Heavy construction contractor.....	26 824 468	18 312 971	(W)	(W)
Construction management.....	1 898 590	1 148 550	(W)	1
Concrete contractor.....	114 173	(NA)	1	(NA)
Excavating and earthmoving contractor.....	163 309	(NA)	1	(NA)
Paving contractor.....	45 757	(NA)	1	(NA)
Architectural and engineering services for others.....	2 267 184	1 432 098	(W)	(W)
Rental of construction machinery or equipment to others.....	56 137	73 628	1	1
Retail trade.....	105 545	(NA)	2	(NA)
Other activities.....	1 726 102	859 146	3	2

**Table 12. Profile of Establishments With Payroll in This Industry: 1982 and Earlier Census Years**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Selected statistics	1982	1977	1972	Relative standard error of estimate (percent) for 1982
<b>AVERAGE PER ESTABLISHMENT</b>				
Number of employees**.....	54.2	49.5	35.3	(W)
Number of construction workers.....	42.0	38.2	28.8	(W)
Number of all other employees.....	11.2	11.1	6.2	(W)
Payroll, all employees.....	\$1,000..	1 443.8	874.9	452.0
Construction worker wages.....	do..	1 128.9	632.2	354.6
Other employee salaries.....	do..	315.0	242.7	97.4
All business receipts.....	do..	4 739.0	2 791.0	1 415.9
Total construction receipts.....	do..	4 392.8	2 592.2	1 362.2
Payments for materials, components, supplies, and fuels.....	do..	1 317.1	807.9	477.9
Construction work subcontracted to others.....	do..	948.3	491.1	257.1
Capital expenditures, other than land.....	do..	58.6	78.2	38.1
Gross book value of depreciable assets.....	do..	711.7	515.1	265.5
<b>AVERAGE PER EMPLOYEE</b>				
Payroll, all employees.....	do..	26.6	17.7	12.8
All business receipts.....	do..	87.5	56.4	40.1
Value added††.....	do..	45.7	30.2	19.3
<b>AVERAGE PER CONSTRUCTION WORKER</b>				
Construction worker wages.....	do..	26.3	16.6	12.3
Total construction receipts.....	do..	102.2	67.9	47.3
Construction worker hours.....	thousand..	1.8	(NA)	(NA)
<b>AVERAGE PER OTHER EMPLOYEE</b>				
Other employee salaries.....	\$1,000..	28.2	21.8	15.6
<b>AVERAGE PER DOLLAR OF TOTAL CONSTRUCTION RECEIPTS</b>				
Payroll, all employees.....	.329	.338	.332	(W)
Payments for materials, components, supplies, and fuels.....	.300	.312	.351	(W)
Payments for construction work subcontracted to others.....	.216	.189	.189	(W)
Capital expenditures, other than land.....	.013	.030	.028	1
Rental payments for machinery, equipment, and structures.....	.017	.023	(NA)	(W)

**Table 13. Selected Industry Ratios for Establishments With Payroll by State: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Location of establishment	Average number of employees** per establishment	Payroll per employee (\$1,000)	Construction worker hours per construction worker (thousands)	Total construction receipts per construction worker (\$1,000)	Average per dollar of total construction receipts				
					Payroll, all employees	Payments for materials, components, supplies, and fuels	Payments for construction work subcontracted to others	Capital expenditures, other than land	Rental payments for machinery, equipment, and structures
United States	54.2	26.6	1.8	102.2	.329	.300	.216	.013	.017
Alabama	40.4	24.7	1.8	109.7	.288	.290	.317	.013	.010
Alaska	50.8	23.3	1.5	107.1	.275	.226	.105	.025	.029
Arizona	36.5	21.9	1.8	117.5	.211	(D)	.103	.010	.005
Arkansas	20.3	22.7	2.1	57.2	.428	.251	.108	.018	.012
California	85.8	36.0	1.9	169.2	.318	(D)	.258	.008	.014
Colorado	45.0	29.6	1.8	181.6	.199	.420	.144	.006	.017
Connecticut	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Delaware	52.6	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
District of Columbia	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Florida	18.5	20.0	1.8	100.3	.262	.338	.151	.024	.022
Georgia	20.8	18.6	1.9	76.7	.283	.318	.211	.022	.012
Hawaii	11.5	20.8	1.5	119.5	.249	.170	.304	(D)	.008
Idaho	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Illinois	37.3	28.7	1.8	140.3	.259	.279	.220	.033	.016
Indiana	27.8	32.1	1.9	72.5	.493	.195	.062	.013	.017
Iowa	4.6	14.6	1.8	95.2	.183	.363	.177	.045	.017
Kansas	20.1	19.6	1.8	85.6	.271	.356	.250	.028	.014
Kentucky	16.3	21.9	1.6	81.3	.325	.353	.117	.027	.030
Louisiana	59.2	23.3	2.1	88.1	.311	.292	.080	.024	.032
Maine	53.0	20.9	2.6	83.2	.299	.366	.143	(D)	(D)
Maryland	87.3	29.7	2.0	119.1	.398	(D)	.295	.016	.021
Massachusetts	99.0	17.2	1.7	50.7	.392	.334	.169	.008	.025
Michigan	68.2	31.4	2.0	111.3	.350	(D)	.278	.009	.015
Minnesota	32.1	20.9	1.7	124.2	.241	.415	.370	.022	.013
Mississippi	67.4	25.1	2.1	86.4	.302	(D)	.121	.006	.015
Missouri	19.7	19.7	1.4	127.8	.182	.307	.264	.033	.015
Montana	19.0	14.4	2.3	65.6	.252	.214	.169	.013	.020
Nebraska	5.0	18.7	1.9	103.5	.217	.277	.208	.049	.051
Nevada	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
New Hampshire	101.3	(D)	(D)	46.3	(D)	.182	.066	.003	.005
New Jersey	35.8	24.0	1.8	104.8	.291	.283	.138	.021	.028
New Mexico	30.4	21.1	1.7	58.3	.411	.254	.089	.067	.034
New York	20.6	25.0	1.8	124.0	.254	.284	.225	.020	.025
North Carolina	14.5	27.3	2.0	126.3	.259	.245	.128	.006	.010
North Dakota	8.1	16.4	1.9	109.8	.177	(D)	.292	.016	.030
Ohio	69.7	20.1	1.3	60.9	.398	.257	.195	.013	.014
Oklahoma	22.9	23.2	2.1	73.9	.379	.299	.110	.029	.022
Oregon	10.3	26.2	1.6	104.7	.332	.273	.139	.030	.102
Pennsylvania	94.1	29.0	2.0	110.3	.375	.297	.187	.009	.015
Rhode Island	23.8	24.9	1.7	95.5	.319	(D)	.109	.010	(D)
South Carolina	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
South Dakota	(S)	(D)	(S)	(S)	(D)	(S)	(S)	(S)	(S)
Tennessee	19.2	17.9	1.8	95.4	.217	.303	.219	.018	.015
Texas	94.1	24.9	2.1	82.4	.356	.265	.156	.016	.020
Utah	41.5	29.2	1.8	75.7	.444	.138	.174	.018	.010
Vermont	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Virginia	28.1	21.9	2.0	99.6	.259	.309	.309	.028	.015
Washington	39.3	32.2	1.9	149.0	.261	.205	.098	.010	.013
West Virginia	38.8	28.3	1.9	65.4	.486	.157	.117	.014	.018
Wisconsin	20.0	24.1	1.7	109.7	.252	.216	.165	.030	.010
Wyoming	9.6	19.8	1.6	78.6	.302	.234	.101	.066	.032

# APPENDIX A.

## Explanation of Terms

**Construction**—Is composed of three broad categories: (1) new construction, (2) additions and alterations, and (3) maintenance and repair. "New construction" includes the complete, original erection of structures and essential service facilities and the initial installation of integral equipment such as elevators and escalators. "Additions and alterations" includes construction activity making structural changes to existing facilities. "Maintenance and repair" includes the restoration of existing buildings or other structures or their service facilities, including the replacement of integral parts. Repainting, repapering, reroofing, etc., are also included.

Construction includes:

- special trade contracting such as electrical work, painting, and carpentering on mobile structures (trailers, mobile homes, and ships).
- support activities by construction contractors on mineral properties, except the following: sinking mine shafts; tunneling and shoring mines; erection, repairing and dismantling of drilling rigs; and building well foundations.
- the physical development of land for purposes other than agriculture.
- demolition of existing structures.

Construction does not include:

- shipbuilding.
- manufacturing of other mobile structures.

**Number of establishments in business during year**—Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments which were inactive or idle for the entire year were not included.

**Number of establishments in business at end of year**—Includes all full-year or part-year establishments that were in business at the end of 1982.

**Proprietors and working partners**—These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners. The partnership factor was based on information received during a large-scale test conducted in prior years.

**All employees**—Comprised all full-time and part-time employees on the payrolls of construction establishments who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid-sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are excluded.

Total employment is calculated for each establishment and is derived by summing the construction workers data reported for March, May, August, and November, dividing by 4 and adding to it the number of other employees reported for March.

This approach was designed to simplify the questionnaire format and the reporting requirements of respondents. The industry average of these four selected pay periods approximates very closely the average employment for the year that would be obtained by using pay periods in all 12 months for almost all of the construction industries.

**Construction workers**—Includes all workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working supervisor level are excluded from this category but are included in the "other employees" category.

**Other employees**—Includes employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working supervisor level.

**Construction worker hours**—Includes the total number of hours worked by construction workers. Construction worker hours were collected for each of the four quarters of 1982 and are published in the detailed statistics tables.

**Payroll**—Includes the gross earnings paid in the calendar year 1982 to all employees on the payroll of construction establishments. It includes all forms of compensation, such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick-leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if an unincorporated concern.

Payroll data were collected and tabulated for the employment categories described above and separately for the first quarter of 1982.

Payroll data for auxiliary establishments of multiestablishment companies are not included in these totals. Selected data for these types of establishments are found in the industry summary report and the 1982 Enterprise Statistics reports.

**Employer costs for fringe benefits**—Represents expenditures made by the employer during 1982 for legally required and voluntary fringe benefit programs for employees. These include employers' Social Security contributions, unemployment compensation, workers' compensation, State temporary disability payments, union negotiated benefits, life insurance premiums, pension plans, insurance premiums on hospital and medical plans, and welfare plans.

**All business receipts**—Includes all receipts from general contracting, special trade contracting or subcontracting, and land development and improvement work. It also includes all receipts from the sale of land (not recorded as fixed assets of the reporting establishments) and buildings built for sale. All other receipts from the reporting establishment's other business operations (rental of equipment to others, wholesale or retail sales, etc.) are also included.

Money obtained during the year in the form of construction loans is not treated as receipts, nor is money realized from the sale or other disposition of the establishment's fixed assets.

Also excluded are receipts from operations in foreign countries and nonoperating income such as interest and dividends.

All business receipts are broken down in the following detail:

**Total construction receipts**—Includes all receipts during 1982 for construction work performed by general contractors, special trades contractors or subcontractors, and for land development and improvement work. Included are receipts for maintenance and repair construction work, as well as for new construction and additions and alterations. Also included is the value of any construction work done by the reporting establishments for themselves.

Builders were instructed to include in this item their 1982 receipts from the sale of buildings and other structures built for sale, excluding from these receipts the value of the land (see "land receipts" below) but including the value of any improvements an establishment made to the land. Builders who traded a new home or other building for an existing one were to include the estimated value of the trade-in.

Also included in construction receipts were fees received as sponsors of joint ventures and fees received as agents for owners (for construction work).

Excluded were receipts for separately definable architectural and engineering work done by the reporting establishment for others and receipts from the rental of equipment to others (see "other business receipts" below).

Establishments engaged in the sale and installation of such construction components as plumbing, heating, and central air conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies for construction purposes were instructed to include as construction receipts both the receipts for the installation and the receipts for the value (selling price) of the items installed. (Receipts for the selling price of items sold but not installed were to be included in "other business receipts.")

**Receipts for work subcontracted in from others**—Covers receipts during 1982 for work done by reporting establishments for other construction contractors or builders. Establishments were asked to report the approximate percent of total construction receipts accounted for by such work, and the percentages reported were applied to the reported construction receipts to develop a value for this item.

**Land receipts**—Includes receipts from the sale of land, whether held for sale or sold in connection with the sale of houses and other structures. It excludes the value of any improvements made to the land prior to the sale. (That value was to be included in construction receipts.)

**Other business receipts**—Includes business receipts not reported as construction receipts or land receipts. The item includes business receipts from retail and wholesale trade, rental of equipment, manufacturing, transportation, legal service, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here.

**Net construction receipts**—Derived for each establishment by subtracting the payments made for construction work subcontracted to others from the total construction receipts. (For a further explanation, see "Duplication of Receipts" section in the Introduction.)

**Value added**—Derived for each establishment, value added is equal to all business receipts, less payments for construction work subcontracted to others and payments for materials, components, supplies, and fuels. For SIC 6552 and SIC 1531, for which land receipts are significant, value added is modified to be equal to all business receipts less land receipts; payments for construction work subcontracted to others; and payments for materials, components, supplies, and fuels. (For a further explanation, see "Duplication of Receipts" section in the Introduction.)

**Selected payments**—Represents the total of payments for materials, components, and supplies; payments for construction work subcontracted to others; and payments for selected power, fuels, and lubricants. Capital expenditures and rental payments for machinery, equipment, and structures are shown elsewhere.

Payments for materials, components, and supplies include:

- total payments made by the reporting establishments during 1982 for the purchase of all materials, components, and supplies, except fuels, used for construction. (Supplies include expendable tools charged to current accounts.)
- freight and other direct charges incurred by the reporting establishment in acquiring the materials, components, and supplies are also included, as are the value of materials, components, and supplies obtained from other establishments of the respondent's company. Payments represent the amount paid after discounts.
- payments for materials, components, and supplies used by the reporting establishments in the construction of new plants or equipment for themselves, which are chargeable to their fixed assets accounts, are included in this item as are payments for materials bought and resold to others.
- payments made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use.

Payments for materials, components, and supplies include only payments for physical goods and represent the amount paid after discounts.

Excluded from this item are:

- services such as advertising, telephone, telegraph and cable, insurance, developmental and research services of engineering, management, marketing, and other professional consultants, unless their costs are included in the prices paid for materials.
- overhead items such as depreciation charges against plant and equipment, rent and rental allowances, interest payments, royalties, patent fees, payments for land, rental of construction machinery or equipment, and construction work let out to other construction contractors.
- materials furnished to contractors by the owners of projects.

Payments for construction work subcontracted to others include:

- all payments made during 1982 for construction work subcontracted out to other construction contractors. General contractors were instructed to include payments to subcontractors. Builders were instructed to include payments made to general contractors and also payments made directly to subcontractors.
- special trade contractors were instructed to include payments made to other subcontractors. The payments made by the reporting establishment for its purchases of materials, components, and supplies are not included here, even if they were provided to a subcontractor for his use. Such purchases are reported under a separate category, "payments for materials, components, and supplies." However, if payments to subcontractors covered materials purchased directly by the subcontractors, then the total of such payments (including material charges) should have been reported in this item.

Excluded from this item are:

- payments made for the rental of construction machinery or equipment.

Payments for selected power, fuels, and lubricants include:

- payments made for fuels, lubricants, and electric energy purchased during the year from other companies, or received from other establishments of the parent company.
- payments made for natural and manufactured gas, fuel oil, coal and coke products, etc.

Dollar amounts include freight and other direct charges.

**Storage capacity for fuels**—Data for storage capacity for fuels were collected from heavy construction contractors, other than building construction contractors. Data are published in the detailed statistics tables for the heavy construction industries, i.e., SIC 1611, SIC 1622, SIC 1623, and SIC 1629.

**Rental payments for machinery, equipment, and structures**—Includes all payments made during 1982 for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes payments for the rental of land. It also excludes payments made under agreements which, in effect, are conditional sales contracts and which, as a result, are capitalized. Such payments are included in "capital expenditures." It also excludes payments made under agreements which, in effect, are true subcontract construction arrangements; such payments are included in payments for "construction work subcontracted to others."

**Selected purchased services**—Includes all payments made during 1982 for communication services purchased from other companies or from other establishments of the parent company. It also includes the cost of all repairs made to structures and equipment by outside firms, or from other establishments of the parent companies. It includes only the cost of that repair necessary to maintain property and equipment. It excludes the cost of improvements that increases the value of property, or the cost of adapting it for another use.

**Fixed assets and depreciation**—Refers to the value of all fixed tangible assets such as buildings and other structures (offices, shops, etc.); stationary machinery (generators, shop equipment, etc.); mobile machinery (tractors, trucks, etc.); and other equipment (office furniture and fixtures, etc.). Not included are such items as current assets, depletable assets, intangible assets, and nondepreciable assets.

Data on fixed assets and depreciation were collected separately for: (1) structures, additions, and related facilities; (2) machinery and equipment; and (3) the total of both.

Respondents were asked to report the gross book value—acquisition cost (original cost or other basis) at the beginning and at the end of 1982. They were also asked to report capitalized expenditures, depreciation charges, and the gross value of assets sold, retired, scrapped, destroyed, etc., during 1982.

**Capital expenditures**—Refers to all costs actually incurred during 1982 which were or would be chargeable to the fixed assets accounts of the reporting establishments and which were of the type for which depreciation accounts are ordinarily maintained. These expenditures cover the acquisition, the construction, and the major alteration of the reporting establishment's own buildings and other structures, whether purchased, constructed under contract, or constructed by the reporting establishment's own forces; and the acquisition of machinery and equipment. Included are payments made under agreements which, in effect, are conditional sales contracts and which, as a result, are capitalized.

Respondents were instructed not to include any expenditures actually made prior to, or after 1982. For example, if they began construction of a building for an establishment's own use before 1982 and did not complete it until after 1982, they were to report only those costs actually incurred during 1982.

If capital expenditures were not recorded directly at the establishment level but handled centrally at the company or division level, respondents were requested to report appropriate estimates for the individual establishments.

- **New structures and related facilities** – Includes the total expenditures during 1982 for new buildings and structures, major additions and alterations to buildings and structures, and other facilities for the reporting establishment's use (such as roads, docks, tracks, parking lots, and fences). It excludes expenditures for land.
- **New machinery and equipment** – Includes expenditures for new machinery and new equipment. This item also includes capitalized repairs and improvements to used machinery and equipment.
- **New automobiles and trucks intended primarily for highway use** – Includes expenditures for new automobiles and trucks and capitalized repairs and improvements to used automobiles and trucks.
- **Used structures and related facilities** – Covers expenditures for used structures and related facilities acquired from others.
- **Used machinery and equipment** – Includes expenditures for used machinery and equipment acquired from others, including automobiles and trucks. Capitalized repairs and improvements to such equipment are reported as new machinery and equipment.

**Value of inventories** – Includes all of the materials and supplies that are owned and located within the United States. Excludes materials which are owned by others, but held by the reporting establishment.

Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

Establishments building structures on their own land for sale (operative builders) were instructed to include the value of materials on hand at the end of the year but not to include the structures not yet sold or under construction.

Land subdividers and developers were instructed to include the value of materials on hand at the end of the year, but not include land not yet sold or under construction.

**Ownership of construction projects** – This item shows the distribution of construction receipts by ownership of the project – Government owned or privately owned. This classification relates to the ownership of the projects or work undertaken and not to the financing. Government owned projects cover those owned by the Federal, Commonwealth, or local governments including public authorities and special districts.

**Types of construction** – This item provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in 1982. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function. For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. However, complex projects consisting of two or more types of buildings, structures, or other facilities are difficult to classify because sufficient information is seldom available. Therefore, respondents were told to classify complex projects by the major function of the total complex.

In addition, heavy construction contractors and special trade contractors were requested to report the percentage of construction receipts derived from new construction work, including additions and alterations, and from maintenance and repair work for each of these types. General building contractors were requested to report the percentage of construction receipts derived from new construction work, from additions and alterations, and from maintenance and repair work for each of these types. See the definition of "Construction" for the meanings of new construction, additions and alterations, and maintenance and repair.

#### Building construction:

- **Single-family houses, detached** – Includes all residential buildings constructed for one family use.
- **Single-family houses, attached (includes townhouses)** – Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings with two or more apartments** – Includes high-rise, low-rise, or any structures other than containing two or more housing units.
- **Other residential buildings** – Includes hotels, motels, dormitories, and other nonhousekeeping residential structures.
- **Bank buildings and other financial institutions** – Includes all buildings which are used primarily to house banks or other financial institutions.
- **Warehouses** – Includes commercial warehouses, cold storage plants, grain elevators, miniwarehouses, and other storage buildings.
- **Farm buildings, nonresidential** – Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Industrial buildings** – Includes all industrial buildings and plants which are used to house production and assembly activities. Note that heavy industrial facilities such as blast furnaces, petroleum refineries, chemical complexes, etc., are NOT included in this category, but are shown under nonbuilding construction.
- **Office buildings** – Includes all buildings which are used primarily for office space or for government administrative offices.
- **Other commercial buildings such as stores, restaurants, and automobile service stations** – Includes all buildings which are intended for use primarily in the wholesale, retail, and service trades. For example, complete shopping centers, department stores, drug stores, restaurants, public garages, and auto service stations.
- **Religious buildings** – Includes all buildings which are intended for religious services or functions, such as churches, synagogues, convents, monasteries, and seminaries.

- **Educational buildings**—Includes all buildings which are used directly in administrative and instructional activities, such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums and art galleries, as well as laboratories which are not a part of a manufacturing establishment, are also included.
- **Hospitals and institutional buildings**—Includes all buildings which are intended to provide hospital and institutional care, such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Amusement, social, and recreational buildings**—Includes buildings which are used primarily for entertainment, social, and recreational activities, such as sports arenas, theaters, music halls, golf and country club buildings, skating rinks, bowling alleys, and indoor swimming pools.
- **Other nonresidential buildings**—Includes buildings which are not classified elsewhere, such as fire stations, bus and air passenger terminals, hangars, etc.

**Nonbuilding construction:**

- **Outdoor swimming pools**—Includes wading pools and reflecting pools.
- **Elevated highways**—Includes roads, highways, and causeways built on structural supports.
- **Bridges**—Includes viaducts, trestles, and overpasses.
- **Tunnels**—Includes highway, pedestrian, and railway tunnels, etc.
- **Railroad construction**—Includes the construction of railroad beds, tracks, freight yards, and signal towers.
- **Subway construction**—Includes urban mass transit subway systems above or below ground.
- **Dam and reservoir construction**—Includes hydroelectric, water supply, and flood control dams and reservoirs.

- **Marine construction**—Includes dredging, underwater rock removal, breakwaters, navigational channels, jetties, and locks.
- **Harbor and port facilities**—Includes docks, piers, and wharves.
- **Conservation and development construction**—Includes land reclamation, irrigation projects, drainage canals, dikes, and levees.
- **Power and communication transmission lines, towers, and related facilities**—Includes telephone and telegraph lines, television and radio towers, electric light and power facilities.
- **Power plants, except nuclear**—Includes electric and steam generating plants.
- **Power plants, nuclear**—Includes atomic energy plants and nuclear reactors.
- **Sewers, sewerlines, and related facilities**—Includes sanitary and storm sewers and related facilities.
- **Sewage treatment plants**—Includes sewage treatment and waste disposal plants.
- **Water mains and related facilities**—Includes water supply systems and related facilities.
- **Water treatment plants**—Includes water filtration and water softening plants.
- **Pipeline construction other than sewer or waterlines**—Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.**—Includes coke ovens, and mining appurtenances such as tipples and washeries.
- **Other nonbuilding construction**—Includes all types of nonbuilding construction, not included elsewhere.

**Location of construction work**—This item includes data for each State in which respondents engaged in construction work and the extent (percent of construction receipts) of that work.



# APPENDIX B. Standard Industrial Classification Titles for Industry Groups and Industries

SIC code	Industry titles	SIC code	Industry titles
<b>15</b>	<b>BUILDING CONSTRUCTION—GENERAL CONTRACTORS AND OPERATIVE BUILDERS</b>	<b>17</b>	<b>CONSTRUCTION—SPECIAL TRADE CONTRACTORS—Con.</b>
152	<b>General Building Contractors—Residential Buildings</b>	173	<b>Electrical Work Special Trade Contractors</b>
1521	General Contractors—Single-Family Houses	1731	Electrical Work Special Trade Contractors
1522	General Contractors—Residential Buildings, Other Than Single-Family Houses	174	<b>Masonry, Stonework, Tile Setting, and Plastering Special Trade Contractors</b>
153	<b>Operative Builders</b>	1741	Masonry, Stone Setting, and Other Stonework Special Trade Contractors
1531	Operative Builders	1742	Plastering, Drywall, Acoustical and Insulation Work Special Trade Contractors
154	<b>General Building Contractors—Nonresidential Buildings</b>	1743	Terrazzo, Tile, Marble, and Mosaic Work Special Trade Contractors
1541	General Contractors—Industrial Buildings and Warehouses	175	<b>Carpentering and Flooring Special Trade Contractors</b>
1542	General Contractors—Nonresidential Buildings, Other Than Industrial Buildings and Warehouses	1751	Carpentering Special Trade Contractors
		1752	Floor Laying and Other Floorwork Special Trade Contractors, N.E.C.
<b>16</b>	<b>CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION—GENERAL CONTRACTORS</b>	<b>176</b>	<b>Roofing and Sheet Metal Work Special Trade Contractors</b>
161	<b>Highway and Street Construction, Except Elevated Highways</b>	1761	Roofing and Sheet Metal Work Special Trade Contractors
1611	Highway and Street Construction Contractors		
162	<b>Heavy Construction, Except Highway and Street Construction</b>	177	<b>Concrete Work Special Trade Contractors</b>
1622	Bridge, Tunnel, and Elevated Highway Construction Contractors	1771	Concrete Work Special Trade Contractors
1623	Water, Sewer, Pipe Line, Communication and Power Line Construction Contractors	178	<b>Water Well Drilling Special Trade Contractors</b>
1629	Heavy Construction Contractors, N.E.C.	1781	Water Well Drilling Special Trade Contractors
<b>17</b>	<b>CONSTRUCTION—SPECIAL TRADE CONTRACTORS</b>	<b>179</b>	<b>Miscellaneous Special Trade Contractors</b>
171	<b>Plumbing, Heating (Except Electric), and Air Conditioning Special Trade Contractors</b>	1791	Structural Steel Erection Special Trade Contractors
1711	Plumbing, Heating (Except Electric), and Air Conditioning Special Trade Contractors	1793	Glass and Glazing Work Special Trade Contractors
		1794	Excavating and Foundation Work Special Trade Contractors
172	<b>Painting, Paper Hanging, and Decorating Special Trade Contractors</b>	1795	Wrecking and Demolition Work Special Trade Contractors
1721	Painting, Paper Hanging, and Decorating Special Trade Contractors	1796	Installation or Erection of Building Equipment Special Trade Contractors, N.E.C.
		1799	Special Trade Contractors, N.E.C.
		6552	<b>SUBDIVIDERS AND DEVELOPERS, EXCEPT CEMETERIES</b>



# **APPENDIX C.**

## **Geographic Divisions and States**

### **NEW ENGLAND STATES**

Connecticut  
Maine  
Massachusetts  
New Hampshire  
Rhode Island  
Vermont

### **MIDDLE ATLANTIC STATES**

New Jersey  
New York  
Pennsylvania

### **EAST NORTH CENTRAL STATES**

Illinois  
Indiana  
Michigan  
Ohio  
Wisconsin

### **WEST NORTH CENTRAL STATES**

Iowa  
Kansas  
Minnesota  
Missouri  
Nebraska  
North Dakota  
South Dakota

### **SOUTH ATLANTIC STATES**

Delaware  
District of Columbia  
Florida  
Georgia  
Maryland

### **SOUTH ATLANTIC STATES—Con.**

North Carolina  
South Carolina  
Virginia  
West Virginia

### **EAST SOUTH CENTRAL STATES**

Alabama  
Kentucky  
Mississippi  
Tennessee

### **WEST SOUTH CENTRAL STATES**

Arkansas  
Louisiana  
Oklahoma  
Texas

### **MOUNTAIN STATES**

Arizona  
Colorado  
Idaho  
Montana  
Nevada  
New Mexico  
Utah  
Wyoming

### **PACIFIC STATES**

Alaska  
California  
Hawaii  
Oregon  
Washington



**REFERENCE MATERIALS • ORDER FORMS • PUBLICATION CORRECTIONS**

*Please send me the items marked (X) below.*

Corrections (if there are any) for this publication—**Construction Industries, Heavy Construction Contractors, N.E.C., CC82-I-9**

If you purchase several different reports from the 1982 Economic Censuses, you should complete this form from each of the reports and return it to the address shown below to receive publication corrections. However, you should complete the following on **only** one of the forms.

Guide to the 1982 Economic Censuses and Related Statistics

Monthly Product Announcement—A monthly notice of all products released by the Census Bureau during the previous month—useful primarily to persons who plan to purchase publications, tapes, etc., in the future.

Publication announcements and order forms — *Mark (X) subjects in which you are interested.*

<input type="checkbox"/> Retail Trade	<input type="checkbox"/> Economic Censuses of Outlying Areas (Puerto Rico, Guam, Virgin Islands, and Northern Mariana Islands)	<input type="checkbox"/> Governments
<input type="checkbox"/> Wholesale Trade	<input type="checkbox"/> Enterprise Statistics	<input type="checkbox"/> Foreign Trade
<input type="checkbox"/> Service Industries	<input type="checkbox"/> Minority- and Women-Owned Businesses	<input type="checkbox"/> Population
<input type="checkbox"/> Construction Industries	<input type="checkbox"/> Agriculture	<input type="checkbox"/> Housing
<input type="checkbox"/> Manufacturing	<input type="checkbox"/> County Business Patterns	<input type="checkbox"/> International Statistics
<input type="checkbox"/> Mineral Industries	<input type="checkbox"/> Quarterly Financial Report	<input type="checkbox"/> Geography
<input type="checkbox"/> Transportation		<input type="checkbox"/> Guides, Catalogs, etc.

Name

Organization

Address/PO Box

City

State

ZIP Code

*Mail completed form to*

**Customer Services  
DUSD  
Bureau of the Census  
Washington, D.C. 20233**



National Data Book and  
Guide to Sources

# STATISTICAL ABSTRACT OF THE UNITED STATES 1984

104th Edition

U. S. Government  
BUREAU OF THE CENSUS

NOW  
AVAILABLE

1,044 pp.

\$19 (Paper)

\$23 (Cloth)

# An American Profile

The Abstract is an economical treasure trove presenting thousands of data items from hundreds of sources to profile the United States. Summary data on over 30 topics—covering the social, economic, and political organization of the U.S.—make the Abstract the premier reference volume. If you are a researcher, an economist, a librarian, a student, or a curious seeker of information, the Abstract is the way.

This 104th edition features:

- Over 1,600 tables and graphic charts based on data from over 250 government and private agencies.
- 97 entirely new tables, including the latest results of the 1980 Census.
- A complete listing of all newly defined metropolitan statistical area (MSA's).
- Recent Trends—highlighting key measures of annual change in graphic and tabular form.
- A Guide to Sources—listing over 1,000 statistical publications, by subject areas, for further reference.
- A new appendix featuring selected characteristics for all 435 congressional districts.

**ORDER FORM** Send order form to Superintendent of Documents, U. S. Government Printing Office, Washington, D.C. 20402.

Please send me the **Statistical Abstract of the United States, 1984**

copy(ies) (paper) \$19 S/N 003-024-05839-1

copy(ies) (cloth) \$23 S/N 003-024-05840-5

Enclosed is \$   check,  
 money order, or charge to my  
Deposit Account No.

Make check or  
money order  
payable to:  
**SUPERINTENDENT  
OF DOCUMENTS**

Credit Card Orders Only

Total charges \$  Fill in the boxes below.

Credit

Card No.

**CHECK ONE**  VISA  MASTERCARD

Expiration Date

Month/Year

PLEASE PRINT OR TYPE

**SHIP TO:**

Company or personal name

Additional address/attention line

Street address

City

(or Country)

State  ZIP code

For Office Use only	
Quantity	Charges
<input type="text"/>	Enclosed <input type="text"/>
<input type="text"/>	To be mailed <input type="text"/>
<input type="text"/>	Subscriptions <input type="text"/>
<input type="text"/>	Postage <input type="text"/>
<input type="text"/>	Foreign handling <input type="text"/>
<input type="text"/>	MMOB <input type="text"/>
<input type="text"/>	OPNR <input type="text"/>
<input type="text"/>	UPNS <input type="text"/>
<input type="text"/>	Discount <input type="text"/>
<input type="text"/>	Refund <input type="text"/>



# PUBLICATION PROGRAM

## 1982 CENSUS OF CONSTRUCTION INDUSTRIES

Publications of the 1982 Census of Construction Industries, containing data on construction establishments in the United States, are described below. Publications order forms for the specific reports may be obtained from any Department of Commerce district office or from Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, D.C. 20233.

### Preliminary Reports

Preliminary data from the 1982 census have been issued in 27 industry reports and 1 summary report. These reports are superseded by more detailed final reports.

### Final Reports

Final detailed statistics are issued in separate paperbound reports.

#### Industry series—28 reports (CC82-I-1 to -28)

Industry series—27 reports (CC82-I-1 to -27). These reports present data for establishments with payroll and are published for each of the 27 industries included in the census. Each industry report presents 1982 data by State and for the United States on number of construction establishments; receipts; employment; hours worked; payrolls; payments to subcontractors; payments for materials, components, and supplies; payments for power and fuels; payments for selected purchased services; payments for the rental of machinery, equipment, and structures; value added; capital expenditures during the year; and depreciable assets. Limited data for 1977, 1972, and 1967 are also shown. In addition, more detailed data are shown at the U.S. level on construction receipts by type of structure (single-family houses, streets, roads, etc.). Selected data also are provided for establishments classified by their employment size and receipts size.

U.S. Summary—1 report (CC82-I-28). This report summarizes the data for establishments with payroll presented in the 27 individual industry reports and presents limited data for establishments with no payroll.

#### Geographic area series—10 reports (CC82-A-1 to -10)

Division reports (CC82-A-1 to -9). These reports are published for States grouped according to the nine census geographic divisions. Much of the geographic area series data are the same as presented in the

industry series, except here they are organized by State rather than by industry. Similar data also are presented for selected SMSA's. Data are provided for establishments classified by their employment size and receipts size. Data for establishments with no payroll as well as comparative 1977, 1972, and 1967 figures, on a limited basis, also are shown.

U.S. Summary by State (CC82-A-10). This report summarizes the data, as presented in the nine individual geographic division reports, for establishments with and without payroll.

#### Special series—1 report (CC82-SP-1)

Legal form of organization and type of operation (CC82-SP-1)—This report presents limited data (number of establishments, number of proprietors and working partners, total employment, and total receipts) for construction establishments without payroll, for construction establishments with payroll, and for the aggregate, classified by industry and by legal form of organization. It also contains selected statistics (number of establishments, employment, payrolls, receipts, payments to subcontractors, net construction receipts, and value added) for construction establishments with payroll, classified by industry and by type of operation (multiunit or single-unit) and by legal form of organization.

### Final Report Volume

Final paperbound reports subsequently are assembled and reissued in one clothbound volume.

### Microfiche

All published data also are available on microfiche.

## OTHER ECONOMIC CENSUSES REPORTS

Data on retail trade, wholesale trade, service industries, manufactures, enterprise statistics, minority-owned businesses, women-owned businesses, and transportation also are issued as part of the 1982 Economic Censuses. A separate series of reports covers the censuses of outlying areas—Puerto Rico, Virgin Islands of the United States, Guam, and the Northern Mariana Islands. All published reports and microfiche are sold by the Superintendent of Documents, U.S. Government Printing Office. Appropriate announcements and order forms describing these products are available free of charge from Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, D.C. 20233.

Superintendent of Documents  
U.S. Government Printing Office  
Washington, D.C. 20402

Official Business  
Penalty for Private Use, \$300



POSTAGE AND FEES PAID  
U.S. DEPARTMENT OF COMMERCE  
COM-202

Special Fourth-Class  
Rate—Book



73029  
116











JUL 1990



5 0673 01038440 5

No